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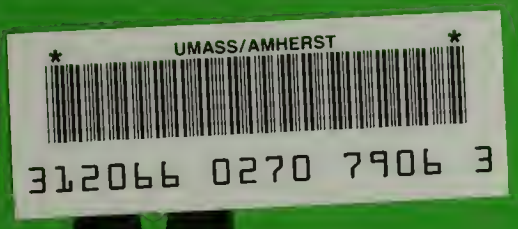

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Managing Debt as a Community Resource

Local Assistance Series 11

WORKING EDITION

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Massachusetts Department of Community Affairs
Office of Local Assistance

MANAGING DEBT AS A COMMUNITY RESOURCE

Massachusetts Department of Community Affairs

Local Assistance Series

May, 1977

AUTHORSHIP & CREDITS

This manual was prepared jointly by Price Waterhouse & Co. and the Massachusetts Department of Community Affairs, Office of Local Assistance.

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PREFACE

This report is part of the local assistance series prepared by the Office of Local Assistance. The local assistance series consists of reports prepared as a result of extensive work conducted by the Office in various localities throughout the Commonwealth. To date, fifteen projects have been undertaken. While these studies are conducted for specific communities, they are designed to be of value to other cities and towns faced with similar planning and management issues. A list of reports prepared by the Office appears on the back cover of this report.

In addition to the series of in-depth studies, the Office provides other services to local governments. The Office assists local governments in the solution of problems related to community development, planning, management and intergovernmental relations. The staff includes specialists in land use management, planning, public administration, municipal finance and related fields. To deliver its services, the Office functions through three sections: Local Liaison; Community Planning and Management; Municipal Advocacy and Policy.

The Local Liaison section is staffed by municipal field representatives assigned to specific communities who maintain regular contact with local chief executives. The section also maintains a toll-free telephone service to respond to inquiries by individual communities. The Community Planning and Management section provides community development planning services and prepares in-depth planning and management studies to assist individual communities in solving significant planning and management problems. The Municipal Advocacy

and Policy section identifies and investigates issues of common concern to all communities, and disseminates relevant information to municipalities. The staff is responsible for developing policy positions for the Governor that embody the municipal perspective on issues which affect local government. The section also assists the Community Planning and Management section in the preparation of in-depth studies.

Managing Debt as a Community Resource, No. 11 in the Local Assistance Series, is designed to serve as a manual for local officials who want to improve their understanding of the activities involved in the issuance of debt and who desire to enhance their capacity to manage debt.

Any community desiring further information on the subject areas covered in any of the reports in the Local Assistance Series should contact the Office of Local Assistance.

We request readers to complete the evaluation form appended to this report so that we may benefit from your experience as to the value of this publication.

Recommendations on How to Read this Manual

The Department has prepared this manual in anticipation that local officials will not have the luxury of time to read it through in one sitting. It is designed, therefore, as a reference tool, to be digested in parts and marked up. Readers should not use it as a legal guide, nor as the final word on administrative policies in this quickly changing area of government.

The reader should also note that this manual addresses key aspects of general obligation debt and refers only in passing to special forms of debt such as industrial revenue bonds, and public housing debt. These and other special forms of debt embody unique and complex features. The reference section suggests further reading for the interested local official.

INTRODUCTION: THE FRAMEWORK OF THIS MANUAL

Local officials who read this manual are most likely concerned about how to manage a scarce resource (money) in a tight economy and still provide adequate services to the taxpayer. Since one of the largest single appropriation items in the annual budget is for debt service, effective controls on the issuance and retirement of municipal bonds is very important to the overall management of local finances.

Debt service costs are one of the largest single appropriation items in a municipality's annual budget. Furthermore, the financial as well as administrative costs of issuing and paying for debt have risen drastically in the last decade. Due mainly to general economic trends, interest rates have roughly doubled since the mid 1960's. Financial crises engulfing some of the nation's largest cities have stimulated greater concern about the credit worthiness of municipal debt, which for decades had been viewed as "risk free." More government oversight and regulation, intended to moderate these adverse trends, are inevitable.

Purpose of this Manual

Massachusetts municipal officials have lacked a means to quickly assimilate the key aspects of municipal debt. This manual provides the following:

- A description of the steps taken in issuing municipal debt in Massachusetts.
- Highlights of important local, state and federal statutory requirements relating to general obligation municipal debt.
- Suggestions on how debt issuance and treasury operations can be managed so as to control and reduce debt related costs.
- A glossary and reference section which prepares the reader for mastering the topic.

MANAGING DEBT AS A COMMUNITY RESOURCE

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CHAPTER I

MUNICIPAL DEBT: FINANCIAL AND LEGAL FOUNDATIONS

A Massachusetts municipality is legally empowered to incur debt which becomes a liability of the issuing municipality as a whole. In the absence of this power, our local government system of today would not be viable. A glance at the financial statements of virtually any municipality would reveal a balance of long-term bonds used to finance capital projects over many years. The bonds are usually issued in situations where a one-time payment would be beyond the means of the municipality. The financial statements might also reveal a balance of short-term loans, designed to fund the service provided by a community before tax payments have been received. Without this device, the municipal government might have to close up prior to the fiscal years' first property tax collection in November. Thus, borrowing is an essential and ordinary part of running the daily affairs of a municipality.

A. KEY LEGAL ASPECTS OF MUNICIPAL DEBT

Massachusetts cities and towns executed their debt policies with relatively little federal or state regulation until the late 19th and early 20th centuries. At the present time, municipal debt is highly regulated and will probably be subjected to increased regulation in the coming years. Federal and state laws intervene to such an extent into the management of municipal debt that the legal aspects of issuing debt tends, at times, to overshadow all other considerations.

1. Tax Exempt Status

A crucial difference between debt issued by Massachusetts municipalities and private enterprises is that the interest paid by the locality to the investor is not subject to most Massachusetts taxes and Federal income taxes. (However, interest on Massachusetts debt is subject to applicable taxes levied by other states.) Exemption from federal income taxes is not explicitly guaranteed

in the United States Constitution but, rather resulted from several United States Supreme Court decisions. It has influenced the marketing of municipal bonds since the final establishment of a federal income tax prior to World War I. The exemption has caused municipal debt holdings to be concentrated in a few classes of tax paying investors, who are willing to purchase municipal bonds offered at lower yields than corporate bonds so long as the "after tax" effective yield compares favorably to after tax corporate bond yields.

The price which Massachusetts municipalities pay for this exempt status is in the form of very lengthy restrictions on the purposes for which municipal debt may be issued. The Internal Revenue Service enforces regulations promulgated under Section 103 of the Internal Revenue Code aimed at prohibitions against the issuance of tax exempt debt for the purpose of re-investing the proceeds in higher yielding taxable investments in order to make a profit (which the IRS calls "arbitrage" profits). Violation of arbitrage regulations may mean loss of federal tax exempt status from future issues. The case by case application of the prohibition involves a very complex area of federal law.

2. Regulation by the Commonwealth

Prior to 1875, there was apparently no attempt to impose restrictions on municipal debt policy by a comprehensive statute. An economic depression, which began in 1873, precipitated the first legislative action to develop such restrictions. Many municipalities had overextended their resources in the preceding decades.

The legislature sought to restore financial stability by passing a statute in 1875 which imposed ceilings on total authorized debt and restrictions on the purpose for which debt may be authorized.

A review of municipal debt, commissioned by the legislature, reported in 1912 that the 1875 statute, supplemented by legislation passed in later years, had failed to maintain adequate standards on the authorization and issuance of municipal debt. Consequently, the legislature passed Chapter 719 of the Acts of 1913.

This act established the current framework for the Commonwealth's laws relating to municipal purposes for borrowing and debt ceilings. The key provisions of the legislation, revised over the years, appear as Sections 7, 8 and 10 of the Chapter 44 of the General Laws. (M.G.L.A., Ch. 44, Ss. 7, 8, and 10)

Section 7 identifies purposes and terms of debt allowed within a debt limit; Section 8 identifies purposes and terms of debt allowed outside the debt limit. In general, debt defined as within the debt limit is retired by the property tax. Debt defined as outside the limit was originally designed to be retired by sources other than the property tax. These purposes, authorized by Sections 7 and 8, which include utilities, schools, fire and police stations, are enumerated in Chapter II.

Section 10 imposes debt ceilings applicable to debt issued for purposes authorized in Section 7 of Chapter 44. Cities are restricted to incurring debt within the limit (as defined by Section 7) of no more than 2.5% of equalized valuation; towns, no more than 5%. The Emergency Finance Board may approve authorizations of cities up to 5% and towns up to 10%. In practice these ceilings do not have a significant impact on municipalities. One reason is that no municipality in recent history has experienced problems in meeting the second ceiling. A second reason is that these limits apply only for purposes considered to be "inside the debt limit." Debt incurred for purposes classified as "outside the

debt limit" have no statutory ceilings. Popular purposes for incurring debt such as state aided school building construction and utility improvements or renovations are placed outside the debt limit.

Additional constraints imposed by Sections 7, 8 and 10 are the requirements that long-term debt be retired on an annual, piecemeal basis and that the last year of retirement be no later than that prescribed by law. A long-term debt which is gradually retired is called a serial bond. It is generally considered to be a safer investment than a so-called term bond, or one which is retired entirely in the last year. The safety of Massachusetts municipal long-term debt is further enhanced by the statutory limits on the number of years for which debt may be issued. The permitted lengths of maturity, which vary by purpose, are generally less than the estimated economic lifetime of the physical assets to be acquired.

State control over municipal debt policies is further documented in the State Constitution's Home Rule Amendment of 1966. The amendment expressly reserves to the General Court legislative control over municipal powers to borrow money or pledge the credit of the city or town. The Massachusetts courts have, as well, asserted their authority to review the constitutionality of municipal debt issues to ensure that the proceeds of issues are used only for public purposes as defined by the courts themselves.

3. <u>The Security for Municipal Debt</u>

The security which backs a general obligation bond is the legal power of the municipality to tax property in order to honor legal obligations. "Full faith and credit" is another term of modern legal usage expressing the pledge that the municipal debt issuer can, will and must use all legally authorized methods to meet the terms of the debt agreement. A general obligation

bond differs from a household mortgage and from many corporate bonds in that the municipality does not restrict its liability to specified assets or source of revenue such as user charge receipts.

Revenue bonds, as the name applies, are secured by a specified source of funds, typically user charge receipts. Many Massachusetts municipalities attempt to pay debt service (interest and principal costs) of water, sewer, electric and parking garage - related bonds with user charge receipts prior to drawing upon tax revenues. These bonds are in fact general obligation debt.

B. STATE REGULATORY BOARDS

1. The Bureau of Accounts

Located in the Department of Corporations and Taxation, the Bureau of Accounts develops standards and regulates municipal financial practices. It is empowered by law to audit all cities and towns and, upon request of a community, to design and install a municipal accounting system. The practical power of the Bureau Director regarding control of major municipal accounting and treasury practices is considerable when the impact of other statutorily-expressed powers of the Director are considered. These include: the certification of a "free cash" balance of municipalities at year end (M.G.L.A., Ch. 59, S. 23), membership on the Emergency Board (described below); and the powers granted to the Commissioner of Corporations and Taxation (the Director's immediate supervisor) to closely regulate municipal treasurers, including power to petition for their removal.

The Bureau exercises its responsibilities primarily through informal consultation, formal audits, and occasional instructional letters and manuals.

2. Emergency Board

The so-called Emergency Board predates much of our modern state government. It was originally founded in 1875 to review,

for authorization, emergency loan requests of municipalities. Today the role of the Board is to review and approve emergency loan applications without any restrictions on purpose or amount (M.G.L.A., Ch. 44, S. 8, C. 9). The members of the Board are the Director of the Bureau of Accounts, the Attorney General and the State Treasurer.

Although the mandate of the Board is sufficiently broad to allow it to override virtually all other statutory restrictions on municipal debt, the Board, in practice, processes only about a dozen applications a year, which usually stem from unforeseen expenditure requirements by municipalities after the tax rate is set.

3. The Emergency Finance Board

Since its founding through Chapter 49 of the Acts of 1933, this Board has experienced a gradual increase in statutory responsibilities. Its membership is composed of the State Treasurer, the Director of the Bureau of Accounts, and three private citizens chosen by the Governor, who also designates the chairman. The Legislature created the Board to administer emergency indebtedness incurred by municipalities during the Depression. At that time, the Commonwealth established several emergency loan programs. One statute permitted municipalities to borrow directly from the State Treasurer in accordance with the Board's approval. While these loans were outstanding, the Board had the power to regulate the municipal borrower's budgetary decisions. Between 1933 and 1944, the Board approved over $71 million in emergency loans. Another statute of the 1930's permitted municipalities to borrow to meet excess welfare expenditures with the Board's approval. These loans, called "municipal relief loans", exceeded $97 million in volume between 1933 and 1944. Authorization for these loans continued through the late 1960's, when the Commonwealth assumed responsibility for welfare costs.

Another job assigned to the Board at its establishment was approval of municipal borrowing tied to federal works projects. Current statutory authority is embodied in Chapter 74 of the Acts of 1945. Also, the Board approves all borrowing for sewers outside the debt limit.

Since the close of World War II, the Board has been assigned more responsibilities. In 1945, legislation was enacted permitting municipalities to establish "stabilization funds." The balance of these funds can be used for any purpose for which the municipality may borrow money and for other purposes by approval of the Board. In 1948 the Board was given responsibility to approve certain school construction borrowing.

The Board is also responsible for enforcing the statutory debt ceilings established in M.G.L.A., Ch. 44, S. 10. Through other amendments of state law, the Board is required to review and approve bond authorizations which fall into some half dozen relatively minor purposes. Municipalities may find out whether Board approval is required by making specific reference to the statutes and by consultation with the Board or bond counsel.

CHAPTER II
THE DECISION BASIS FOR AUTHORIZING DEBT

For most Massachusetts citizens, the term municipal debt usually conveys an image of school buildings, water mains and similar physical construction projects. Such capital projects are often financed by long-term general obligation debt, or bonds, a term which is often used to mean a debt of over one year in maturity.

What is a capital project? There is no standard legal definition of what a capital expense is and how it differs from an operational expense. Many Massachusetts municipalities apply their own criteria to deciding when an expenditure is sufficiently large, non-recurring and unique to be called a capital expenditure. The focus of this chapter of the manual is upon large physical acquisitions which, according to state laws, may be financed by general obligation bonds.

Municipal officials should take four important steps prior to authorizing a bond issue. These steps are:

1. Review of state law to determine that the bonds may be issued for the project's purpose.
2. Evaluation of the municipality's ability to "afford" a new bond issue.
3. Financial analysis to evaluate the merits of the project and alternative sources of financing.
4. Plan for timing the date of bond issuance to minimize adverse impact on the property tax rate.

The following sections of this chapter describe how municipal officials can accomplish these steps.

A. LEGALLY AUTHORIZED PURPOSES FOR BOND ISSUES

Capital projects which can be financed by general obligation bonds in Massachusetts can be sorted into three classes: public use projects, public enterprise projects and economic development projects.

1. Public Use Projects

Municipalities have traditionally undertaken capital investments which are intended for general public use without charge. The authorized purposes applicable to this type of project include:

1. Construction of school buildings.
2. Construction of buildings for use by general government operations, such as police, fire, public works, and "town" or "city hall" functions.
3. Remodeling, reconstructing, or renovating public buildings.
4. Construction of bridges, public ways, walls and wharves.
5. Construction of incinerators.
6. Purchase and development of land for public parks, cemeteries or for any other authorized purpose.
7. Purchase of departmental equipment, lights, alarm and communication systems.
8. Architectural and engineering fees for plans and specifications for authorized building construction.
9. War memorials.
10. Purchase of land for conservation purposes.

Investments made for these purposes are generally not considered self-supportable through fees.

2. Public Enterprise Projects

The term "public enterprises" refers to government operations which are financed entirely or partly from user charges.

State law and special acts have allowed for municipal general obligation bonds to finance the following public enterprises owned and operated by municipalities:

1. Water systems
2. Sewer systems
3. Electric distribution systems
4. Swimming pools and skating rinks

This list is not exclusive. There are other public enterprise projects which, by law, may be financed with general obligation debt, but they are infrequently undertaken.

General obligation bonds are usually issued to finance these projects in Massachusetts, while in other states revenue bonds are more frequently issued.

3. Economic Development Projects

The active participation by Massachusetts local governments in economic development is a long established tradition. One of the most noteworthy early investments included the Quincy Market area of Boston, which some 150 years after its construction, once again provides a focal point for economic vitality. Today, municipalities may issue state subsidized general obligation bonds to finance public improvements within officially designated urban renewal areas.

Industrial revenue bonds, which pay for manufacturing facilities to be leased to private corporations, are not general obligation bonds and are not treated in this manual.

4. Special Act Projects ...

Municipalities may also undertake and finance, by general obligation, long-term debt projects under the authorization of special legislation if the purpose or circumstances surrounding a proposed capital project and debt issue are out of the ordinary. A recent example is special legislation passed to enable an issue of bonds for the City of Taunton's electric system.

5. ... and Federal Grant Projects

It should also be kept in mind that any capital project may be eligible for financing by federal grant funds. The municipality may issue general obligation debt to pay its share, or may pay for the project wholly or partially with federal funds on a pay as you go basis.

B. CAN THE MUNICIPALITY "AFFORD" MORE DEBT?

Affordability is the most pressing question raised when capital projects are reviewed. It is vital that municipal officials understand that the municipality is solely responsible for determining the appropriate total amount of debt to have outstanding at any one time. Neither the Commonwealth, banks, bond counsel, bond investors or any other outside party can be presumed to make that decision.

An "excessive" debt burden presents a number of problems to municipalities. First, debt service costs are high. Secondly, these costs, being fixed, freeze up a portion of budgetary revenues and reduce the overall financial flexibility of the municipality. Thirdly, if the bond market perceives a municipality's debt burden as being excessive, credit ratings may decline and interest rates on future issues may increase, thus aggravating the budgetary problem.

1. The Use of Debt Ceilings

One often used guide to debt policy in local government has been a locally imposed ceiling on total authorized or issued debt. This ceiling can be implemented by informal agreement, or by by-law, resolution, ordinance, or charter amendment.

Such a ceiling would add muscle to the state's statutorily imposed ceilings, as the effectiveness of the Commonwealth's debt ceilings imposed on municipalities in Chapter 44 is nominal. When ceilings were first imposed, they may have exerted a strong effect

on municipal borrowing decisions. At the present time, the ceilings contain so many exemptions that it is hard to find even a theoretical limit imposed upon a particular community, much less apply these limits in a practical manner to guide local debt policy.

Perhaps the greatest single attraction of a self-imposed ceiling is its simplicity in comprehension and application. Drawbacks to the mechanism focus on the arbitrary nature in which the ceilings are imposed as well as the ambiguity over types of indebtedness which should be included in the ceiling. Before any ceiling can be imposed, officials must decide whether or not to include enterprise debt, debt which is reimbursable by other sources, short-term or overlapping debt.

Local debt ceilings are typically calculated as a percentage of property value, assessed or equalized. Massachusetts towns under 10,000 population tend to have as issued debt an amount less than 3% of equalized valuation. For towns over 10,000, 5% is a high ratio; and for cities, 7% is a high ratio. These ratios are for all issued, direct general obligation long-term debt. For municipalities who may wish to include or exclude certain categories of debt, a table on page 14 shows how the inclusion or exclusion of certain categories can produce significantly different ratios.

Another often utilized ratio for measuring debt burden is the amount of issued debt per capita. Most Massachusetts towns under 10,000 population have less than $100 of debt per capita. For towns over 10,000 $400 is a high amount; for cities $600 is high.

Debt burden can also be defined using debt service payments as a proportion of the annual budget. For example, is debt service payments could not constitute more than 15 or 20 percent of the annual budget, the incurrence of indebtedness would be controlled in addition to limiting the commitments made on future budgets. If

a strict proportion of debt service to the annual budget is viewed as unacceptable, a limit could be placed on the rate of increase of debt service payments (e.g. funds expended for debt service may not increase by more than 10% in any one year). Such limits, while arbitrary by nature, can be helpful in assisting local decision makers maintain a sound debt management policy.

This approach raises some issues which should be carefully considered. The maturity structure of a bond issue may be as important a factor as the size of the issue. A policy of accepting only gradual increments in debt service costs may create a bias against short maturity debt, which generates heavy costs in the initial years but retires quickly. Officials should look beyond the "hump" of the first few years when evaluating future year tax rate impacts on capital project debt financing.

FIVE METHODS OF CALCULATING DEBT BURDEN OF A MUNICIPALITY

Debt burden ratios are useful for comparing debt practices of different municipalities and for calculating a precedent ceiling for borrowing. Ratios can vary significantly depending on what debt is included in the calculation. Comparisons between municipalities may also vary due to differing municipal responsibilities for providing utility and other services.

Assumptions

Equalized Valuation:	$100,000,000
Direct outstanding debt inside the limit:	1,000,000
Direct outstanding debt outside the limit of which debt service on $1,500,000 is paid by the Commonwealth:	3,000,000
Overlapping debt (municipal share):	500,000

To be included:

Debt to be Included:	Total Burden Recognized	Percentage of Equalized Valuation
1. Direct inside limit debt only.	$1,000,000	1%
2. Total direct debt	4,000,000	4%
3. Direct and overlapping debt.	4,500,000	4.5%
4. Direct debt only, net of Commonwealth supported portion.	2,500,000	2.5%
5. Direct and overlapping debt, net of Commonwealth supported portion	3,000,000	3.0%

Notes on Each Method

Method Number

1. Includes only a fraction of outstanding debt. Not useful.

2. More useful. Comparative data relatively easy to gather for other municipalities.

3. Often considered even more useful, but overlapping debt figures may be difficult to gather for other municipalities.

4. Provides the best profile of the direct debt burden.

5. Provides the best profile of the debt burden of the municipality of all the methods presented here.

C. FINANCIAL EVALUATION OF THE PROJECT AND ALTERNATIVE SOURCES OF FINANCING

1. The Importance of Planning

The issuance of a bond is preceded by intensive and lengthy planning of the capital project to be undertaken. Careful planning is either desirable or simply an absolute requirement for various reasons. State and federal regulatory agencies may insist upon plans being drawn to their standards. Careful planning is also extremely advantageous to the municipality because it provides a method of identifying and choosing between the most attractive alternatives for meeting project goals at the lowest feasible costs.

2. Is the Capital Project Justified?

The first critical phase of capital project planning involves a critical appraisal of the merits of the proposed project. Project appraisal techniques vary according to the type of project under review. The generalized checklist included on page 17 highlights some of the important questions to pose particularly at the beginning of project appraisal.

One of the possible purposes for the project, suggested by the checklist, is "required by legislation or action of other governmental jurisdictions." Good examples of such projects include water and sewer projects mandated by federal environmental quality standards.

An example of analysis which may be included in a project appraisal is the school facilities survey, required by the State Department of Education prior to its approval of financial assistance to local school construction. This survey is summarized on page 24. It is aimed at evaluating school facility requirements of the overall school system as well as of individual neighborhoods and age groups. By adopting such a broad scope, the officials doing this survey are more confident of preparing specific school capital project plans which are successfully coordinated with one another.

SAMPLE CHECKLIST FOR CAPITAL PROJECT APPRAISAL

The objective of this checklist is to assist municipal officials in making a preliminary review of capital project proposals.

A. Purpose of Project

Note why this project is required and how it is justified within the respective department. Classify the project according to the following priorities in order of importance. The project is:

1. Required by legislation or action of other governmental jurisdictions;
2. Eliminating a proven or obvious hazard to public health and safety;
3. Replacing a clearly obsolete facility or maintaining and better utilizing an existing facility;
4. Directly benefiting the municipality's economic base by increasing property values;
5. Resulting in reduced operating costs and potentially better service;
6. Preventing a substantial reduction in an existing standard of service due to population growth;
7. Providing new programs or projects having primary social, cultural, historic or aesthetic value;
8. Providing new programs or projects designed primarily to increase public convenience or comfort.

B. The Following Questions Should be Answered

1. Does the project conform to a department or municipal plan, and any other pertinent municipal guidelines? Does the proposed project necessitate any changes in these guidelines?
2. Specify authorization for this project in state statute and, if applicable, federal assistance statutes and regulations.
3. Is the estimated useful life of the project realistic?
4. Does the proposed project allow for future expansion? Flexibility for periods of heavy demand?
5. If this is a replacement proposal, what disposition will be made of the present facilities?
6. Has the municipality had experience with this or a similar project? If so, evaluate.
7. What are the estimated operating expenses on an annual basis? Are they realistic?
8. Are there alternative methods to achieve the desired effect resulting from the project? If so, evaluate.

3. Purchase, Construct or Lease?

Only after a proposed project has passed an initial phase of project appraisal is it worth evaluating how the project may be accomplished. Many facility and equipment acquisition projects offer opportunities for purchase, construction, or lease. Debt issuance would not result if the lease option is taken.

A comparison of methods for acquiring capital facilities; included on page 20, suggests some of the relative advantages and disadvantages of each alternative. To do a thorough evaluation, it is desirable to develop financial projections of the estimated costs of each alternative; both the estimated operating costs and the costs of financing will vary.

4. Which is the Best Financing Plan?

A financing plan is an arrangement to pay for physical acquisition costs. Projects which are eligible for debt financing may also be paid for in part or whole by other means. They include the following:

Annual Appropriation - Under this financing plan, the project is funded from the property tax revenues generated in one fiscal year. Frequently, departmental equipment such as a vehicle is purchased in this manner. While the impact would only affect that tax rate for one year, the plan is unviable if the cost of the plan is so high that the impact on the tax rate will be unbearable.

Stabilization Fund Appropriation - In accordance with the provisions of M.G.L.A., Ch. 40, S.5B, municipalities may establish stabilization funds into which monies may be appropriated each year for the purpose of funding some capital project in the future. Financing projects through this method avoids the cost of interest but also requires careful forethought and planning in addition to not providing any immediate visible benefit.

$5000 UNITED STATES OF AMERICA COMMONWEALTH OF MASSACHUSETTS $5000

CITY OF EVERETT

CUSIP

No. PARKING FACILITY LOAN - ACT OF 1975 ON THE FIRST DAY OF MAY 1994

The CITY OF EVERETT, Massachusetts, for value received promises to pay to bearer

FIVE THOUSAND DOLLARS

upon presentation and surrender hereof, with interest from May 1, 1977 at the rate of ( ) per cent per annum payable semi-annually on the first days of May and November in each year, on presentation of the respective coupons therefor attached hereto, both principal and interest being payable at the SHAWMUT BANK OF BOSTON, N.A., in Boston, Massachusetts.

This bond is issued pursuant to Chapter 108 of the Acts of 1976 and orders of the City Council approved on December 26, 1975 and December 8, 1976. It shall not be valid unless certified hereon by the SHAWMUT BANK OF BOSTON, N.A.

THIS BOND IS EXEMPT FROM TAXATION IN MASSACHUSETTS.

IN WITNESS WHEREOF the CITY OF EVERETT has caused this bond to bear the seal of the city and to be signed by its Treasurer and countersigned by its Mayor and Auditor and the attached coupons to bear the facsimile signature of its Treasurer.

COUNTERSIGNED

Dated May 1, 1977

MAYOR

AUDITOR TREASURER

CERTIFICATE OF THE
SHAWMUT BANK OF BOSTON, N.A.

It is hereby certified that this is one of the bonds referred to in the opinion of Mintz, Levin, Cohn, Glovsky and Popeo of which a true copy is set forth on this bond. The original opinion, which is dated as of the date of the original delivery of and payment for this bond, and the supporting documents mentioned therein may be inspected at our banking rooms.

SHAWMUT BANK OF BOSTON, N.A.

BY

AUTHORIZED OFFICER
ISSUE NO. 77-02

SIDEWALK BOND

This bond is issued pursuant to Section 7(6) of Chapter 44 of the General Laws, as amended, and orders of the City Council approved on February 25, 1976 and May 13, 1976. It shall not be valid unless certified hereon by the SHAWMUT BANK OF BOSTON, N.A.

ISSUE NO. 77-01

A blank bond form. When filled out, and with legal opinion attached, this bond is a legally valid promise to pay the owner interest semi-annually and the entire principal amount of $5,000 on May 1, 1994.

COMPARISON OF METHODS FOR ACQUIRING CAPITAL FACILITIES

THOD	ADVANTAGES	DISADVANTAGES
rchase	1. If adequate facilities are available this can be the fastest and least expensive method of acquisition.	1. Maintenance and operating costs may be high if the facility is old or poorly maintained. 2. Purchasing may require that bonds be issued thus increasing the cost of the project.
nstruct	1. This is <u>usually</u> the least expensive method in the long run. 2. The facilities can be designed to meet specific needs, such as for fire stations, jails, streets and roads, sewers, and water lines.	1. Construction of a major facility takes several years to complete and a jurisdiction may not have time to wait. 2. Construction requires that competent project management and purchasing personnel be on the staff of the governmental unit. 3. Bond may have to be issued.
ıse	1. If future needs are uncertain or expected to change considerably, then leasing provides the most flexible alternative. 2. Leasing may be the most politically feasible method since funding may be made from current revenues and not from bonds. 3. Leasing generally does not require "overhead" support, such as a maintenance staff.	1. Leasing may be the most expensive long run alternative (therefore, Federal and State subsidized agencies should be the first to be located in leased facilities). 2. The leasee does not have "control" over the facility, such as making desired alterations to a building or adjusting the heating system when it does not operate properly. 3. Adequate facilities may not be available to lease.

Betterment Assessments - Certain improvements to sewers, drains and sidewalks may be financed directly by assessments, or assessments may be applied to service the debt issued to finance these improvements. Assessments are a valid approach only in cases where the beneficiaries of a project can be individually identified.

User Charges - Enterprise projects generate user charges which can be used to pay financing costs. In most instances, user charges collected in one year are not sufficient to pay for physical acquisition costs incurred in the year. These charges can, however, be applied to debt service costs incurred by a debt issue.

Federal Multi-Purpose Grant Programs - The Federal Government has launched, in the last 5 years, several new grant programs aimed primarily at municipalities. These programs generally fall into the "block grant" concept of federal assistance, which means that the programs are designed to provide large amounts of money for communities to use with a wide latitude of local discretion. The principal programs are:

1. General Revenue Sharing Grants.
2. Community Development Block Grants.
3. Public Works Act of 1976 Grants.

The practical importance of these programs to municipal debt management is that they may be used to reduce or completely eliminate anticipated bond issues and the future debt service costs therefrom.

Municipal officials should take note that they are funded by the Federal Government entirely and do not require specified matching funds for communities to contribute. The Commonwealth's role in administering the programs is limited to review of community development and public works grant applications prior to their submission to federal agencies.

Federal Limited Purpose Grant Programs - While a large share of federal assistance funds are currently channeled into multi-purpose grant programs, the Federal Government continues to administer grant programs dedicated to a single purpose. One example of these programs is the Federal Water Pollution Control Program, established in 1972 and one of the most influential pieces of federal legislation on municipal operations. The Act drastically extended the role of the Federal Government in regulating and financing pollution control projects by industry and governmental units.

The Act covers: "Solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural wastes discharged into water."

Building upon earlier water pollution control legislation, the 1972 law established a tight regulatory system with precise and detailed abatement requirements, streamlined enforcement procedures and heavy penalties for violations. Municipalities may seek 75% federal assistance and 15% Commonwealth assistance in constructing treatment facilities to help bring its entire waste treatment system into compliance with water quality standards. The Federal Government is also able to guarantee the locally issued debt if the municipality can show that it is not able to issue debt at "reasonable terms."

State Grant Programs - The Commonwealth administers five major programs designed to assist municipalities in financing capital projects: sewer construction grants attached to federal aid; school construction grants, urban renewal grants, highway construction grants, and a package of public housing construction grants and programs involving local housing authorities. Housing authority debt is not general obligation debt of the municipality.

The school construction grant program assists in financing an estimated 95% of all public primary and secondary school construction in the Commonwealth. Because of its impact, this program is described below in greater detail.

The Department of Education's procedures require a municipality to submit an application for assistance under this program after a formal survey and architectural plans and specifications are prepared. (A summary of a formal survey is included on page 24). The municipality submits a tentative estimate of project costs and plans for financing.

The School Building Assistance Bureau reviews the applications and submits them to the Board of Education for approval or rejection. The Board, in making its review, follows statutory guidelines, which were modified by legislation in 1976 in order to control better the rate of spending on the program. The Board is required to determine that a proposed project is "in the best interest" of the state; can be funded at the existing level of program authorization; is consistent with the priorities established by legislation; and if approved, will follow the Board's construction procedures and standards.

After a project is approved, a complex formula is used to determine the rate of reimbursement for costs approved on the basis of a final submission of cost estimates at the time of project completion.

The construction grant would be between 50% and 75% of the approved cost of the project. The standard method of payment of this grant is for the municipality to issue debt to the full amount of the project, and for the state to make periodic payments, starting in the fiscal year after the year in which construction is commenced. The state's payment schedule would be, therefore, stretched out as long as the last principal maturity date.

SCHOOL FACILITIES SURVEY: WHAT IT REVIEWS

1. Demographic analysis
   a. Extent and direction of community growth
   b. Trends in residential and industrial-related construction including highway construction
   c. Factors affecting racial unbalance requirements
   d. Ten year projections of enrollments for all grades.
2. Inventory of public education space (show enrollment capacity and construction characteristics)
   a. Classroom space
   b. Physical education space
   c. Library
   d. Outdoor space.
3. Evaluation of the educational adequacy of all facilities
   a. Evaluation of public school facilities from the standpoint of structural adequacy, safety and health.
   b. Evaluation of non-public school buildings from the standpoint of educational and structural adequacy.
   c. Evaluation of grade organization patterns as these relate to current and probable future educational good practice, program characteristics, and facilities.
   d. Evaluation of occupational education programs and facilities affiliated with the district.
4. Criteria for development of plant configuration, including:
   a. Class size at various levels.
   b. Grouping and instructional practices.
   c. Grade organization patterns.
   d. Maximum desirable size of all school units.
   e. Configuration of attendance areas and location of schools.
   f. Extent of outdoor programs.
   g. Relationship of the school plant to community and adult use.
   h. Special education programs.
   i. Occupational and technical education programs.
   j. Racial balance programs.
5. Specific recommendations for plant development, including cost estimates:
   a. Construction of new buildings.
   b. Remodelling, renovation, rehabilitation, and modernization of existing facilities.
   c. Additions, with needed remodelling, to existing buildings.
   d. Abandonment of existing facilities.
   e. Acquisition of existing, educationally sound non-public schools or other structures.
   f. Site acquisition and/or development proposals.

The state also agrees to fund 20 to 65% of the interest costs incurred in note and bond borrowing. It requires, in return, that 75% of the investment return from the proceeds of the notes and bonds be deducted from the final approved cost of the project.

5. Choosing the Right Financing Plan

Choosing the appropriate financing mix for a proposed capital project is a process which requires a knowledge of potential financing sources, a sensitivity to the property tax burden of the municipality, as well as a philosophical perspective as to how costs should be most equitably spread among current and future taxpayers and users.

Some of the questions which should be addressed are the following:

1. Are state and federal grant multi-purpose or limited purpose funds available?
2. Should the primary beneficiaries - users who may not be taxpayers - pay through user charges or assessments?
3. Should future beneficiaries pay through debt service payments on long-term bonds, or will the usefulness of the project so quickly expire that only present taxpayers will benefit and should pay the full amount through a tax levy or an early maturing bond?
4. What is the limit of tolerance of taxpayers to an increase in tax levies to pay for the project?

6. Presenting a Capital Project Budget

The key financial elements of a capital project can be stitched together in a single capital project budget. Massachusetts communities follow widely varying practices in preparing capital project budgets. Some follow the steps recommended in a Department of Community Affairs booklet on capital budgeting published in 1976, while other communities have developed their own procedures. A hypothetical budget for a $2,500,000 project is presented on page 26.

FINANCIAL ANALYSIS FOR A $2,500,000 CAPITAL OUTLAY PROJECT

(figures in 000's)

	Year I	Year II	Year III	Year IV	Year V
1. Construction costs	250	1,700	550		
2. Increase (decrease) in operating costs per Year 1			250	250	275
3. Financing:					
A) Property tax	150	250	100		
B) Federal grant	100	150			
C) Debt S.T. debt service	-	30			
D) Long term debt service	-	-	192.5	187.5	182.5
E) Investment income from debt proceeds	-	(20)	(15)	-	
4. Net property tax impact of financing plan	150	260	277.5	187.5	182.5
5. Operating and financing costs to be raised by property tax (2&4)	150	260	527.5	437.5	457.5

A capital project budget typically includes a narrative description of the proposed project as well as financial figures. A hypothetical financial budget for a $2,500,000 capital outlay project is presented to show how financial projections can be presented. The hypothetical project is expected to be financed by property taxes ($500,000), federal grant ($250,000) and a $1,750,000 20-year general obligation bond issue. A 4% bond anticipation note issue for $1,000,000 is expected in the first months of the Year II; the 20-year bond is expected to be issued in the last months of Year II at a 6% interest rate. Completed in Year III, the project is expected to increase operating costs (maintenance and fuel costs, for example) by substantial amounts. Line 2 projects increases in operating costs. Line 4 projects the net property tax impact of the financing plan. Line 5 shows a total of these two lines.

D. IS THE EXPECTED TIMING OF THE BOND ISSUE RIGHT?

The time of year in which a bond is issued and the use of bond anticipation notes can alter the repayment schedule of the bond issue. The impact on the property tax is most noticeable in the first few years of the project.

The interest and principal payments made on the bond issue are due respectively on the six month and annual anniversary of the date on which the bond was issued and have no direct relationship with the community's fiscal year. By altering the issue date of bonds, municipal officials can change the fiscal year in which the first debt services payments fall.

The use of bond anticipation notes (BANs) help to alter the timing of bond issuance and thereby affect the property tax levy. In the example below, two methods of retiring the same amount of debt are illustrated with very different effects on the property tax levy for the first few years. The example will revolve around a $1,000,000 bond issue at interest rate of 6% for a term of 20 years.

(figures in thousands)

ALTERNATIVE I

$1,000,000 20-year bond issued in October, 1978

	April interest payment	October interest payment	October principal payment	total payment
FY1979	30	-	-	30
FY1980	28.5	30	50	108.5
FY1981	27	28.5	50	105.5
FY1982	25.5	27	50	102.5

ALTERNATIVE II

$1,000,000 1 year BAN issued in October, 1978 and renewed in October, 1979

$947,000 18 year bond issued in October, 1980

	April interest payment	October interest payment	interest on BANs	principal payment	total payment
FY1979	-	-	-	-	-
FY1980	-	-	40	-	40
FY1981	28	-	40	53*	121
FY1982	27	28	-	53	108

*This is an appropriation, not a principal payment, as required by M.G.L.A., Ch. 44, s.17A to help retire the BAN. The first actual principal payment of the 18-year bond issue is made in October, 1981. The $53,000 appropriation reduces the amount of the bond to $947,000.

In Alternative I, the bond is issued in October, 1978. Since the bond is issued in October, only one interest payment is required in FY1979, with principal payment delayed until FY1980.

The community, however, may decide not to issue the bond right away. Delaying the issue could be done to time the bond issue with the project completion date or it may also be done in anticipation of lower interest rates in the near future. For whatever reasons, the community may issue Bond Anticipation Notes (BANs) for the amount of the bond issue for a period of one year and renew for a second year.

Alternative II indicates the annual costs of the bond issue when the community decides to initially finance the project through two consecutive 12 month BANs at 4% interest. The initial BAN is issued in October, 1978. Under this financing method, the first payment on the BAN is due in October, 1979 which is in FY1980. Therefore, the costs of the project for the first year FY1979, are zero. The initial BAN is refunded in October, 1979. The second BAN is refunded by the bond issue in October, 1980 (FY1981).

When BANs are refunded for a second year, the municipality must, in accordance with M.G.L.A., Ch. 44, S. 17A, reduce the term of the bond to be issued by two years, reduce the size of the issue by an amount roughly equivalent to one year's principal payment, and appropriate an identical amount to assist in retirement of the second BAN. This complicated formula (included in Appendix A) would, in this case, reduce the bond issued to 18 years and about $947,000 and require an appropriation of about $53,000.

The financial implications of the two alternative methods of financing on each year and for the three year period are as follows:

Total Annual Payments to be Paid by Appropriations (in 000's)

	FY1979	FY1980	FY1981	FY1982	Total
Alternative (1)	30	108.5	105.5	102.5	346.5
Alternative (2)	-0-	40.0	121.0	108.0	269.0

These projections simplify reality by ignoring certain factors. The attorney and certifying bank fee charges for note and bond issue preparation are left out. Investment income of idle debt proceeds are ignored. Also, the possible premium received over the par value of the bond, which can be used to reduce bond preparation and debt service costs, is not taken into account. Relatively minor factors of this nature could add (or reduce) the first year costs of a $1,000,000 financing plan by a substantial amount.

CHAPTER III
STEPS IN AUTHORIZING AND ISSUING MUNICIPAL GENERAL OBLIGATION BONDS

Municipalities of the Commonwealth authorize and issue debt through steps designated to ensure compliance with local by-laws or charter restrictions, state statutes, federal statutes and regulations, and, not least in importance, the changing conventions of the municipal bond market.

A. AUTHORIZATION

Cities and towns may authorize debt only by a 2/3 vote of the members of their respective legislative branches (M.G.L.A., Ch. 44, Ss. 7-8). The authorization resolution must identify the purpose and the amount of the loan authorized. It is usually prepared or reviewed by municipal counsel for legality prior to submission and vote. A typical authorizing warrant is as follows:

> Article 10: Funds for water system improvement - Voted: that the sum of $100,000.00 be appropriated for improving the town's water system by replacing the main pumping unit and other system improvements, and that to raise this amount the treasurer, with the approval of the selectmen, be and hereby is authorized to borrow $100,000.00 and to issue bonds or notes under Chapter 44 of the General Laws as amended.

A bond issue tied to a state or federal assistance may be authorized in the following language.

> Article 20: Funds for school construction - Voted: that the sum of $250,000.00 be appropriated for improving the town's school plant by constructing four new classrooms at the Abraham Lincoln School; and that to raise this amount the treasurer, with the approval of the selectmen, is authorized to borrow $250,000.00 and to issue bonds or notes under Chapter 44 of the General Laws as amended; that the amount shall be reduced by any accelerated state grant and that no contract shall be signed and no monies borrowed unless the project is approved by the State Board of Education and 65% of the estimated cost of the construction is granted by the state.

Bond authorizations usually provide for bond anticipation notes as well as long-term borrowing.

The bond authorization may be subject to approval of the Commonwealth's Emergency Finance Board under the following circumstances: (1) if federal or state financial participation in the project is expected, (2) if the borrowing is for certain specified purposes, (3) if the authorization would cause the town's total authorized debt to exceed ceilings established by law. The Board usually grants its approval when all required legal documents are completed and submitted.

Citizens of some municipalities are empowered to petition to have a bond authorization reconsidered and submitted to a public referendum. The municipality may also rescind an authorization if subsequent events indicate that bonds are not to be issued.

B. BOND ISSUES

Virtually all general obligation bonds issued by Massachusetts municipalities are sold through competitive bidding by underwriters (banks and security dealers who seek to purchase and immediately resell the bonds at a profit). Cities and towns have the legal power to select an underwriter without competitive bidding or may sell bonds directly to an investor, thereby by-passing the underwriters altogether. These options are rarely exercised. The steps required for a competitive bid issue of bonds will be outlined, followed by a description of how a negotiated sale through an underwriter would differ.

A city or town which seeks to issue previously authorized bonds is required by M.G.L.A., Ch. 44, S. 16 to secure approval of the terms of the sale by the treasurer and mayor in a city and by majority vote of the selectmen in a town.

1. The Bond Counsel

Prior to issuance, the municipality engages an attorney or law firm as bond counsel to prepare a legal opinion for distribution to underwriters and investors.

While not required by state or federal statutes the participation of legal counsel in the preparation and issuance of municipal debt has become so integrated into the municipal debt market that absence of the bond counsel's opinion probably would prevent an issue from being sold.

The conventional role of bond counsel is to enhance the marketability of the municipal client's debt by asserting a positive opinion regarding the legality of the debt. Specifically, bond counsel prepares and submits a final opinion which asserts that all legally required steps for authorization of the bond issue were taken, that the bond is a valid general obligation of the issuing municipality, and that tax exempting provisions of state and federal tax laws apply.

The steps which bond counsel takes in preparing the opinion are, in most instances, very uniform, and consist primarily of inspecting certain documents and, if warranted, interviewing a few officials. The documents which bond counsel may require include certified copies of:

1. The municipal debt authorizations.
2. Emergency Finance Board approval.
3. Federal and state grant approvals.
4. A statement of indebtedness.
5. A statement of property valuation.
6. A statement that bond proceeds are to be spent in a timely fashion on the authorized project.
7. Minutes of all relevant meetings and hearings.

When the bonds are printed, bond counsel will inspect them to check for proper form and content.

Bond counsel may request a variety of documents, such as a statement signed by individual municipal officers and the certifying bank attesting to the validity of other documents and the genuineness of their signatures, and a statement that there is no pending or threatened litigation affecting the validity of the bonds and the power to levy and collect taxes for the purpose of paying debt

The opinion which bond counsel prepares and signs to accompany the delivery of the bonds is worded to reflect legal convention. The formality and apparent overlapping of assertions are the result of bond counsel's desire to form an opinion which will meet the goal of marketing the bond as easily as possible.

2. Certifying Agent - Designing the Bond Issue

The municipality also engages a bank to serve as certifying agent in exchange for a fee. This term refers to one task of the bank, which is to certify that the physical bond documents, the signature and seal attached thereto, and the legal opinion referred therein are genuine. While no state statute requires such a certification be made, bond market custom makes it a practical necessity. Certifying banks also offer to perform other services, which may be provided by other professional firms or may be conducted by

municipal personnel. Certifying banks, for example, may handle chores such as arranging for the printing of the bonds and provide advice to the municipality in designing the bond issue. Important considerations which the municipality should consider and seek advice on include:

1. Establishing the number and sizes of groups or lots of bonds to be sold. Bond issues often consolidate borrowing for various purposes. As state law prescribes the maximum last principal maturity of the bonds according to purpose, a bond issue may include several lots with differing last principal maturities. All lots can be sold together, at a uniform interest rate. Sometimes lots with very different last maturities and purposes are made into separate issues and sold simultaneously on the basis of different bids.
2. Establishing the rate of principal retirement. State law (M.G.L.A., Ch. 44, S. 19) requires bonds to be refunded on a serial basis commencing on the first anniversary of the issue date with an equal or descending size of principal maturities. Appendix B provides an example of a bond retirement schedule.
3. Deciding whether the bond will be redeemable, or "callable" by the municipality at some date after issue. A call privilege allows the municipality to retire a bond issue at an early date. Virtually all Massachusetts municipal general obligation bonds are "non-callable".

3. Preparing Information for Potential Bidders

The municipality, assisted by the certifying bank, bond counsel, or other financial advisors, prepares official documents required by custom for a successful sale. In recent years, Massachusetts municipalities have begun to publish large "official statements" which describe the issue and provide extensive financial, organizational, demographic and economic information about the municipality. Other terms which are used interchangeably

with "official statement" in refering to the same document include "offering circular," "offering statement," "prospectus," and "red herring." The term "notice of bond sale" refers only to a formal invitation for bids for a bond sale. The Table of Contents of a recent official statement published by the Town of Bedford is included on page 36; the Notice of Sale is included on page 37.

Potential bidders for an upcoming issue often depend heavily on credit ratings to determine if and at what price they will bid. Moody's Investment Service, Inc., and Standard and Poor's Corporation are the leading municipal bond rating organizations in the nation. For a fee, paid by the municipality, they will rate an upcoming issue. More information about credit ratings is contained in pages 61 to 68.

4. The Competitive Bidding Process

Assisted by the certifying bank, the municipal issuer chooses a date on which bids for the bonds are to be submitted.

A notice of sale to prospective bidders is distributed and notices are placed in the financial media. Bidders prepare the bids and submit them to a formal bid opening, which usually takes place at the certifying bank. Municipal officials open the bids and, in most instances, make an award at that moment. The award is based on net interest cost as calculated in the written bids and confirmed by municipal and bank officials.

Net interest cost is calculated in the following manner. In virtually all instances, municipalities require submitted bids to state a single interest rate for the entire issue (quoted in twentieths or eighths) and a total price at which the bidders will purchase the bonds (M.G.L.A., Ch. 44, S. 22 allows municipalities to request bids with interest rates varying for separate maturities, but this is rarely done). That price must be no lower than the face amount of the bonds, and is typically slightly higher.

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FORM OF PROPOSAL FOR BONDS	

The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale of the Bonds described herein shall, under any circumstances, create any implication that there has been no change in the affairs of the Town since the date hereof.

NOTICE OF SALE

TOWN OF BEDFORD
MASSACHUSETTS

The TOWN OF BEDFORD, MASSACHUSETTS, will receive proposals until 11.00 A.M. (Local Time) Tuesday, October 26, 1976 for the purchase of the following coupon bonds in the denomination of $5,000 each, dated November 15, 1976, principal and semiannual interest payable at the STATE STREET BANK and TRUST COMPANY, in Boston, Massachusetts:

$1,000,000 WATER BONDS payable $100,000 on November 15 each year 1977 to 1986 inclusive.
$ 800,000 SEWER BONDS payable $40,000 on November 15 each year 1977 to 1996 inclusive.
$ 260,000 LAND ACQUISITION BONDS payable $55,000 on November 15, 1977 and 1978 and $50,000 on November 15 each year 1979 to 1981 inclusive.

The bonds will be prepared under the supervision of and authenticated by the STATE STREET BANK and TRUST COMPANY and their legality approved by Palmer & Dodge whose opinion will be furnished the purchaser. The bonds will, in the opinion of bond counsel, be valid general obligations of the Town of Bedford and all taxable property in the Town will be subject to the levy of unlimited ad valorem taxes to pay both principal and interest.

Each bond will state on its face that it is EXEMPT FROM TAXATION IN MASSACHUSETTS and the opinion of bond counsel will state that under existing statutes, the bonds are exempt from local property taxes in Massachusetts and the interest thereon is exempt from Massachusetts personal income taxes and from federal income taxes.

The original opinion and copies of the supporting documents incident to these issues will be filed with the STATE STREET BANK and TRUST COMPANY where they may be inspected. A copy of the legal opinion will be printed on each bond.

Bids, including bids by delivered telegram, should be sealed, marked "Proposal for Bonds" and addressed to *Mrs. Marcia L. Sternberg, Treasurer, Town of Bedford, c/o State Street Bank and Trust Company, Municipal Services Department, Fourth Floor, 225 Franklin Street, Boston, Massachusetts.* NO TELEPHONE BIDS WILL BE ACCEPTED.

Bidders shall name one rate of interest in a multiple of 1/20 of 1% for all the bonds offered and no bid of less than par and accrued interest will be considered.

It is the intention of the Town to award the bonds to the highest bidder agreeing to accept the lowest rate of interest or as between bidders offering the same lowest rate, to the bidder offering to pay the highest premium. The award is subject to approval by the Board of Selectmen.

It is anticipated that CUSIP identification numbers will be printed on said bonds, but neither the failure to print such number on any bond or any error with respect thereto shall constitute cause for a failure or refusal by the purchaser thereof to accept delivery of and pay for said bonds. All expenses in relation to the printing of CUSIP numbers on said bonds shall be paid for by the issuer; provided, however that the issuer assumes no responsibility for any CUSIP Service Bureau or other charge that may be imposed for the assignment of such numbers.

The bonds will be delivered to the purchaser at the STATE STREET BANK and TRUST COMPANY on or about November 22, 1976, against payment in Boston funds.

Additional information concerning the Town of Bedford and the bonds is contained in the Official Statement dated October 12, 1976, to which prospective bidders are directed. The Official Statement is provided for informational purposes only and is not a part of this Notice of Sale. Copies of the Official Statement and a suggested form of proposal for the bonds may be obtained from the State Street Bank and Trust Company, Municipal Services Department, Fourth Floor, 225 Franklin Street, Boston, Massachusetts 02101. Telephone (617) 786-3445. Following the award of the bonds, copies of the Official Statement in a reasonable quantity will be available upon request of the successful bidder for use in reoffering the bonds.

The right is reserved to reject any or all bids.

October 12, 1976

MARCIA L. STERNBERG
Treasurer

Assume, for example, that a bid is submitted for a $1,000,000 offering. A bidder wishing to purchase the bonds with an interest rate of 5.70% will submit a bid of 5.70% "at par". If this bid wins, the issuer will sell the bonds for $1,000,000 in cash and a promise to pay $57.00 annual interest on every $1,000 of outstanding portion of the bond. A bidder wishing to purchase the bonds with an interest rate of slightly less than 5.70% will submit a bid at the one twentieth mark of 5.70% and offer to purchase the bond at, for example, a "premium" of "100.25999" meaning 0.25999% more than the par value of the bond or $1,002,599.90. The following detailed calculation shows how these figures are used to calculate net interest cost.

Net Interest Cost Calculation

Amount of Bonds	To Mature In	Annual	Bond Years (each $1,000 bond times years to maturity)
$ 200,000	1 year	$ 57,000	200
200,000	2 years	45,600	400
200,000	3 years	34,200	600
200,000	4 years	22,800	800
200,000	5 years	11,400	1,000
$1,000,000		$171,000	3,000

3,000	number of bond years
X $57	annual interest per $1,000 bond
$171,000	total interest cost of issue
- 2,599.90	premium
168,400.10	net interest cost (NIC)
÷ 3,000	number of bond years
56.133	NIC per $1,000 bond
5.6133%	NIC expressed as an interest rate

Even up to the submission of bids but prior to an award, a municipality has the discretion to postpone or even cancel the sale. Massachusetts municipalities have, at times, turned down all bids because they were deemed excessively high.

The award decision sets in motion a series of closely coordinated steps which involve the municipality, the winning bidder, bond counsel and, for the first time, the paying agent which the municipality has chosen to be the payer of interest and principal. The paying agent need not be, but usually is, the same bank as the certifying agent, and its role is assigned to it as a matter of convention rather than required by statute. Bond counsel prepares a complete and final draft of the legal opinion and presents it to the certifying bank, which prints copies on the bonds. The certifying bank's signature is placed on the bonds and at this point they are ready for exchange for funds from the winning bidder.

During the handful of days between award date and the date agreed to for delivery of the bonds for cash, the winning bidder - "underwriter" - arranges for the resale of the bonds by bringing to life tentative arrangements made prior to bidding with interested purchasers. The underwriter may also prepare an advertisement ("tombstone") in the financial media, to highlight a retailing campaign to "reoffer" or resell the bonds.

5. Negotiated Bid

This alternative procedure for issuing bonds conforms to the general framework of the competitive bid issues, with a few significant exceptions. The municipality chooses, early in the process, an underwriter (or an underwriting syndicate) to handle the bond issue. The underwriter assumes some of the responsibilities currently undertaken by the certifying bank, including supervision of the printing of bonds, design of the issue and design of the content and format of the official statement.

The procedures for advertising and awarding of bids is done away with. Shortly before the expected issue date, the underwriter submits a final bid or proposal to the municipality which states the interest and terms under which it will purchase the issue. If accepted, the sale is in effect completed; the underwriter then reoffers the bonds to investors.

Municipal officials prefer competitive bid sales because they remove any suggestion of favoritism and are believed to result in lower interest expense to the issuer. The negotiated sale method is commonly held as equally or more preferable if the bond issue contains unique characteristics. In this instance, an underwriter, predesignated by a negotiated award, would presumably expend greater effort at finding investors at the best possible terms for the municipality. Due to the extremely small number of negotiated bid sales by Massachusetts municipalities (4 in 1975), it is not possible to determine which method is generally less expensive to the issuer in the Commonwealth.

6. State House Notes

Towns are permitted by M.G.L.A., Ch. 44, Ss. 23-27, to issue long-term debt through a special means designed to reduce the administrative costs associated with bond issuance. The security issued is called a "state house note." It is not to be confused with the term "note," defining short-term loans maturing in a year or less, and discussed in Chapter IV.

State House notes are issued on forms provided by the Bureau of Accounts. Town officials fill out, sign and submit completed forms to the Bureau for review by the Bureau Director. The Director's formal certification of the notes serves as both the legal opinion and the certification as to genuineness.

Towns often avail themselves of this means of issuance when the size of the issue is relatively small (under $100,000) and is to be sold through an informal bidding process to in-state and knowledgeable investors.

C. ADMINISTRATION OF OUTSTANDING DEBT

Once the bonds have been exchanged for cash, the administrative tasks relating to the bond issue simplify. Arrangements are made with the paying agent to pay interest and principal costs, whether by check mailed to a bondholder's address listed on a bond register or in exchange for physical coupons brought to the paying agent's premises. The municipality forwards funds to an account with the fiscal agent immediately prior to interest and principal payment dates. Actual payments are made on six month anniversary dates from the date of issue while principal payments are made on the annual anniversary dates.

CHAPTER IV
SHORT TERM FINANCING: PURPOSES, PLANS AND MECHANICS

Massachusetts municipalities, like private corporations, often experience temporary cash shortages which can most efficiently be overcome by short-term borrowing.

A. PURPOSES

Financially stable Massachusetts communities borrow temporarily under either of two conditions. The first one is for municipalities to borrow in anticipation of receiving other receipts in the future, such as taxes, bond proceeds, and federal grants. Below is a brief summary of the various types of temporary borrowing:

1. Revenue Anticipation Notes (RANs) - (See M.G.L.A., c. 44, S. 4) RANs are issued to immediately obtain monies which will be or are due the municipality but which have not yet been received. Since most RANs are redeemed at maturity by property tax revenues, they are often referred to as Tax Anticipation Notes (TANs). They may be authorized by a majority vote of the city or town legislative body. The term of these notes may not exceed or be renewed to exceed one year and the amount for one fiscal year may not exceed a sum equal to the previous year's tax levy and motor vehicle excise tax receipts. The notes must be issued in anticipation of revenues to be received in the year in which the debt is issued. According to M.G.L.A., Ch. 44, S. 55, RAN proceeds may not be invested except in saving accounts. Also, while revenue cash is invested, RANs cannot be issued.

2. Bond Anticipation Notes (BANs)- (See M.G.L.A., Ch. 44, S. 17) BANs are issued to obtain some or all of the funds necessary for a capital project without issuing the bonds which will pay for the project. The use of BANs provides several benefits to the municipality. It allows the municipality to borrow portions of the total amount of money needed and thereby pay the costs of the project as they are incurred. This method of financing a project avoids the interest payments on the full amount of the bond until it is required and also avoids the accumulation of idle bond proceeds. BANs are issued for up to one year and can be renewed. The law requires that the second BAN be redeemed in part by an amount at least equal to the minimum annual payment which would have been required if the bond had been previously issued. The bond initially issued must be reduced by a similar amount. This complicated formula is outlined in Appendix A. Similar to the RANs, BAN proceeds may not be invested except in savings accounts.

3. Federal Aid Anticipation Notes (FAANs) - Municipalities may also incur short-term indebtedness to begin projects which will be funded by a federal grant. The same also holds for state grants. The authorization for such borrowing is vested in various state statutes.

Municipalities may also borrow to pay for pressing, legitimate and usually unexpected expenditures. The state statutes specifically authorize borrowing in order to:

1. Pay final legal judgments after the tax rate is fixed, with one year notes (M.G.L.A., Ch. 44, S. 7, c. 11).

2. Pay for "common necessities" of life for municipal inhabitants during a period of "war, public exiguity emergency or distress" with bonds up to two years in maturity. (M.G.L.A., Ch. 44, S. 8, c. 2).

A clause in state statutes (M.G.L.A., Ch. 44, S. 8, c. 9) allows municipalities to borrow for up to two years for "such emergency appropriations as shall be approved by a majority of the members" of an emergency board, composed of the Director of the Bureau of Accounts, the Attorney General and the State Treasurer. Borrowing by municipalities under this clause is an infrequent occurrence. Examples include unforeseen snow removal expenses, a new contract covering public employees taking effect immediately, and other items unforeseen in the budget and especially in the last few months of the fiscal year.

B. SHORT-TERM CASH PLANNING

The reward for performing careful cash planning is greater assurance that short-term borrowing is properly timed, kept at a minimum and that short-term investment earnings of idle cash balances are maximized.

It is worthwhile keeping in mind a couple of key laws which apply to short-term borrowing and investments. Internal Revenue Service regulations prohibit note proceeds from being used primarily to earn investment income. This prohibition is enforced in practice by bond counsel's insistence that the issuing municipality clearly demonstrates a legitimate purpose for issuing the notes.

State law (M.G.L.A., Ch. 44, S. 55) restricts the type of investment which municipalities may make to United States Treasury Bills, federal funds, certificates of deposits, repurchase agreements, and the State Treasury's new Massachusetts Municipal Depository Trust.

As long as these and other legal guidelines are observed, municipalities enjoy considerable discretion in making short-term borrowing decisions. They can, for example, time revenue anticipation note maturities to coincide with expected receipts. They can decide upon the level of funds desirable to have on hand at any time and how these funds should be held (till cash, demand account deposits, savings account deposits, and investments). Municipalities can make use of bond anticipation borrowing to effectively postpone bond issuances until either the project is substantially completed or until a more favorable bond market is predicted.

1. A Quick Cash Flow Overview

Municipal officials who wish to gain a detailed grasp of their municipality's short-term debt practices can ask the municipal treasurer to prepare a quick cash flow overview.

The purpose of this exercise is two-fold: once completed, it provides to municipal officials a feel for the seasonal flow of cash, and it brings together a lot of information useful to short-term note buyers and other investors in evaluating the financial management of the municipalities.

The chart included on page 47 represents actual data collected in a municipality of about 50,000 population. In order to make the chart easy to read, dollar amounts have been deleted. The municipal treasurer was able to construct the chart in a short amount of time.

This chart is designed to illustrate a municipality's cash flow performance. For example, the municipality conventionally requires short-term financing in the fall months (coming due in November's tax collection period) but not in the spring or summer.

The apparent reasons for no borrowing in the spring is that the annual lottery disbursement in December and motor vehicle excise receipts in March and April keeps cash balances high.

It is also evident that capital improvement projects, which involved federal grants and a major bond issue in June, do require a considerable number of financing transactions. The chart assists in explaining the reason for some interest charges incurred by the municipality. We see that a FAAN note, for example, was renewed for several months because federal grant funds did not arrive on the initially forecasted date of October 31, but several months later. This problem could be caused by late billing on the part of the municipality, administrative delays on the part of the grantor agency, or some other reason.

According to notes 3, 4 and 5 of the Chart, postponement of a major bond issue required the municipality to refinance in March and April BANs which were issued in January. Further investigation would reveal that these transactions took place in 1975, during one of the stormiest periods in the municipal bond market, and that the postponement almost certainly brought about a reduction in the net interest cost of the bond issue.

2. Detailed Cash Flow Forecasting

The quick cash flow overview is useful to illustrate how management decisions regarding the timing, quantity, and purpose of short-term borrowing are directly related to daily and monthly changes in revenue collection and expenditures. The most effective means to properly organize this information is to develop a detailed cash flow forecast for a year and to periodically update the forecast. Several weeks of work may be required to develop an initial forecast, but it can be maintained thereafter with relatively little effort.

A TWELVE MONTH CASH FLOW OVERVIEW

	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE
Major Receipts	Revenue Sharing	CDBG	Ch. 70	Revenue Sharing 1st Tax Payment	CDBG	Ch. 70 Lottery	School Trans. Revenue Sharing	CDGB	Ch. 70 Vehicle Excise Bill	Ch. 766 Revenue Sharing 2nd Tax Payment	CDBG	Sewer Bill Ch. 70
RAN* Issues		11/3	11/12 11/11 11/5	11/6	12/7(1)							
FAAN* Issues			10/31(2)		1/30(2)							
BAN* Issues							4/15 3/7	4/15 6/18	6/18 6/18(3)	6/30(4) 6/30		(5)
Investments, Cash and Savings Acct. Balances Revenues Accounts End of Month 1975-76	400,000	900,000	1,500,000	1,900,000	3,000,000(6)		1,600,000	1,200,000	1,700,000	3,300,000(7)	2,000,000	1,400,000

*For 1975 and 1976 - Cited by maturity date, (i.e. a RAN was issued in August to mature 11/3). Loan amounts deleted in order to simplify chart.

(1) Issued in 1975, when tax rate was not set until November.

(2) In anticipation of Federal share of sewer project. The November issue, due 1/30, is a renewal of the FAAN due 10/31. Federal grant receipt was delayed.

(3) Refinancing of January loan due 3/7 on account of postponement of bond issue.

(4) Refinancing of January and February loans due 4/15 on account of postponement of bond issue.

(5) Bond issuance in June.

(6) Increase due to tax receipts. Balance of this amount would normally appear at end of October. First property tax bills went out late.

(7) Includes 2nd property tax payment.

(8) CDBG: Community Development Block Grant

Note: The chart shows the months in which major receipts were received by a municipality during 1975-76. It also indicates the months in which short-term borrowing occurred. The numbers in the chart refer to the due date of the short-term note.

An examplary forecast is shown on pages 49-50. It projects cash flow for three reporting periods (in this case, months). A "revenue account" (or main account) projection is presented with a second projection for a single capital improvement project. The key assumptions underlying this forecast are:

1. A minimum cash balance of $5,000 is to be maintained in the revenue account and $2,000 in the capital improvement project account.

2. The capital project costs $250,000 and will be paid by $20,000 in annual appropriations, $25,000 in a Community Development Block Grant ("CDBG"); $100,000 in other federal grant funds; and $105,000 in general obligation debt.

3. A $105,000 bond issue is scheduled for the third month. (A bond issue of this size, when issued by a town, would typically be issued as a State House note).

The forecast is developed by the treasurer who first projects non-debt or investment related receipts and expenditures ("B" & "D" lines). After adding the beginning cash balance of the first month ("A"), the treasurer calculates a net balance for month end ("E"). The minimum cash balance is added in to calculate total funds available or required ("G").

At this point, the treasurer must decide how to dispose of an available balance (usually by investments) or collect the required amount. For the revenue account in the first month the treasurer borrows $5,000 in RANs and sells $5,000 in investments. For the capital improvement project, the treasurer borrows $50,000 in BANs and $50,000 in FAANs;

REVENUE ACCOUNT
CASH FLOW FORECAST

	Month 1	Month 2	Month 3
Revenue Account			
A. Beginning Cash Balance	10	5	5
Receipts			
Taxes	80	60	120
State Distributions	-	10	50
Federal Grants	10	-	-
Other	10	10	10
B. Total Receipts	100	80	180
C. (A+B) Total Gross Funds Available	110	85	185
Expenditures			
Payroll	80	80	70
Approp. Share capital projects	10	10	-
Other	25	25	20
D. Total Expenditures	115	115	90
E. (C-D) Net Balance	(5)	(20)	95
F. Minimum Cash Balance	5	5	5
G. (E+F) Total Funds Available (Required)	(10)	(25)	90
H. Loans, Transfers and Investments			
RAN Loan Sale (Redemption)	5	25	(30)
FAAN Loan Sale (Redemption)	-	-	-
Transfers (To) From Other Accounts	-	-	-
Revenue Account Investment Sales (Purchases)	5	-	(55)
I. Ending Cash Balance	5	5	5

CAPITAL PROJECT ACCOUNT
CASH FLOW FORECAST

	Month 1	Month 2	Month 3
Capital Project Account			
A. Beginning Cash Balance	-	2	2
Receipts, (Appropriations & Grants)			
Appropriated Share	10	10	-
CDBG Share	25	-	-
Federal Grant Share	-	-	100
Other	-	-	-
B. Total Receipts	35	10	100
C. (A+B) Total Gross Funds Available	35	12	102
Expenditures			
Contractor #1	50	-	-
Contractor #2	-	100	100
D. Total Expenditures	50	100	100
E. (C-D) Net Balance	(15)	(88)	2
F. Minimum Cash Balance	2	2	0
G. (E+F) Total Funds Available (Required)	(17)	(90)	2
H. Loans, Transfers and Investments			
BAN Loan Sale (Redemption)	50	-	(50)
FAAN Loan Sale (Redemption)	50	50	(100)
Bond	-	-	105
Transfers (To) From			
Other Accounts	-	-	-
Capital Project Account			
Investment Sales (Purchases)	(83)	40	43
I. Ending Cash Balance	2	2	-

$17,000 of these receipts are used to meet the amount of funds required ("G"). $83,000 is invested until needed in the following two months. Both accounts are left with the desired minimum cash balance with which to start the next reporting period.

The same steps are taken for the length of the forecast. The treasurer concludes the forecast by estimating borrowing requirements as follows:

Month 1:

$5,000 Revenue account RAN to mature in Month 3
$50,000 Capital project BAN to mature in Month 3
$50,000 Capital project FAAN to mature in Month 3

Month 2:

$25,000 Revenue account RAN to mature in Month 3
No BAN
$50,000 Capital project FAAN to mature in Month 3

Month 3:

$105,000 Capital project bond to be issued.

C. STEPS IN AUTHORIZING AND ISSUING SHORT-TERM NOTES

The method of issuing RANs, BANs, and FAANs is essentially identical. The key steps in issuing a typical RAN are described below. The first step is for the municipal treasurer to secure a RAN loan authorization by majority vote from the town meeting or a city council. Usually, an authorization will be voted upon to apply for all RANs to be issued in a fiscal year. A typical authorization reads as follows:

> Article 3: Temporary borrowing - Voted: that the town treasurer, with the approval of the selectmen, be and hereby is authorized to borrow money from time to time in anticipation of the revenue of the financial year beginning July 1 ____ in accordance with the provisions of General Laws, Chapter 44, Section 4, and to issue a note or notes therefore, payable within one year and to renew any notes as may be given for a period of less than one year in accordance with General Laws, Chapter 44, Section 17.

State statute (M.G.L.A., Ch. 44, S. 4) requires a majority vote for authorization of RAN borrowing. At the time of issuance, approval of the sale by the treasurer and mayor in a city and a majority of the selectmen in a town is required (M.G.L.A., Ch. 44, S. 16).

Authorization for BANs and FAANs are implicitly secured when authorization is made for the applicable bond or receipt of federal grant. Emergency loans permitted by Ch. 44, Section 8, paragraph 9, must receive further authorization by the State's Emergency Board.

The next step in the issuance of a RAN is for the municipal treasurer to notify a bank which will serve as at least a coordinator of the paperflow generated by the note issuance. In the example which follows, the municipal treasurer assigns to the coordinating bank the job of soliciting bids, certifying the notes (if issued by a city), and serving as paying agent.

At this point, the actual notes are prepared. An example of one is included on page 53. If the issuer is a city, the bank will draw out of its files blank note forms and will fill in the essential information about the note. The bank will then send the physical note to city officials to be individually signed. The treasurer also informs the bank the name of the bond counsel selected for the issue. The bank in turn notifies the bond counsel and forwards to the municipality blank copies of legal forms, prepared by bond counsel, to be filled in by municipal officials.

Commonwealth of Massachusetts

No. $----------

City of Haverhill

Revenue Anticipation Note

Exempt from Taxation in Massachusetts

On _____ for value received the CITY OF HAVERHILL, Massachusetts, promises to pay to bearer

_____ DOLLARS

at the SHAWMUT BANK OF BOSTON, N.A., IN BOSTON, MASSACHUSETTS.

This note is issued pursuant to Section 4 of Chapter 44 of the General Laws as amended. It is hereby certified that every requirement of law relating to the issue hereof has been duly complied with and that this note is within every applicable debt or other limit.

This note shall not be valid unless certified hereon by the Shawmut Bank of Boston, N.A.

Dated _____ CITY OF HAVERHILL

COUNTERSIGNED BY

SPECIMEN SPECIMEN

_____ _____

MAYOR CITY TREASURER

CERTIFICATE OF THE SHAWMUT BANK OF BOSTON, N.A.

The Shawmut Bank of Boston, N.A., certifies that the signatures hereon are genuine and that this note is issued pursuant to an order of the City Council of the City of Haverhill, the validity of which order has been approved by Palmer & Dodge.

SHAWMUT BANK OF BOSTON, N.A.

BY SPECIMEN

_____

AUTHORIZED OFFICER

If the issuer is a town, the convenient State House note method is available. The Bureau of Accounts will mail to the town blank note forms which the town official will fill out, sign and mail back to the Bureau of Accounts for the Bureau Director to certify genuineness and legality. The certified notes are then mailed to the coordinating bank.

The bank and the treasurer prepare a list of commercial banks and other potential purchasers to be notified. If the treasurer agrees to an informal sale of the notes, then the marketing effort is reduced to one or a few phone calls during which an interest rate is negotiated. If the sale is to be more competitive, the bank will call a list of potential bidding banks and send these banks a written invitation to bid.

The municipal treasurer instructs the bank whether the notes are to be sold at discount or sold at par, with interest paid at maturity. The treasurer may decide which option to take on the basis of which appears more convenient.

These forms include a statement, which certifies that the notes were approved by an order of city council or town meeting. The statement also certifies that the notes are issued pursuant to M.G.L.A., Ch. 44, S. 4, and that the balance of RANs outstanding, including this issue, is not in excess of the uncollected and unabated portion of the property tax levy of the current fiscal year. The statement is signed by city and town officials. The municipal treasurer also signs a statement which asserts that the proceeds from the sale of RANs will not be used for purposes of arbitrage.

Bidding banks call the town treasurer directly to submit bids. The treasurer makes an award (in many cases, multiple awards) and notifies the coordinating bank of the decision. The coordinating bank would thereupon make arrangements to secure a final review by bond counsel to sign its legal opinion. The bank makes delivery of the notes with copies of its legal opinion. Payment is usually made by checkless transfers of funds between banks by way of accounts at the Federal Reserve Bank of Boston with the coordinating bank usually serving as the paying agent to handle all financial transactions associated with the sale.

These steps have evolved through decades of practice. They are designed to ensure that sales of notes are accomplished in compliance with law and with a minimum of delay. From the municipal treasurer's initial call to the coordinating bank to the exchange of notes for cash, only a few working days need to elapse, and most sales are conducted in about a week.

D. COSTS OF SHORT-TERM BORROWING

The marketing of general obligation short-term notes by cities and towns is, in virtually all instances, conducted by unpublicized transactions between the municipal treasurer and one or a handful of banks, which either hold the notes for their own account or resell them to another investor. Banks receive their compensation by a combination of the following: (1) the yield on the notes held for its own account, (2) profits realized by re-selling the notes, and (3) idle cash balances maintained in demand deposits. The coordinating banks may also charge the municipality a fee for services in preparing the note issue, including affixing a certification of the notes if the issurer is a city.

The municipal official who wishes to determine what is a reasonable or fair compensation for a bank which purchases municipal notes as underwriter or investor is handicapped because some relevant information is not readily available. This information should include corporate tax liability of the bank. If the bank is, from a tax standpoint, operating at a loss, then the tax exempt status of the temporary note is of no value. Other relevant information is the actual hours spent by the bank personnel in serving as financial advisors to the municipality in planning short-term issues without charge. A third type of relevant information is the amount of investable assets which the bank may have reserved for purchasing short-term notes but which, because of the lower than expected demand, remained idle or was less efficiently invested.

However, the treasurer is able to estimate the "effective" interest rate of borrowing, which in virtually all instances is higher than the nominal interest rate of the note sold. In order to estimate the effective interest rate, the treasurer identifies all associated out-of-pocket costs as well as foregone interest income of idle cash balances relating to the sale. An example on page 57 shows a 4% three month RAN which actually costs the issuing municipality an effective interest cost of 8.50%. This is not an atypical example. The calculations indicate that idle cash balances, maintained often at the request of the bank, constitute a large cost of borrowing. Banks are quite aware of the importance of idle balances and often submit bids which are calculated on the expectation that idle cash will be deposited. The treasurer who wishes to award notes at the lowest cost should award on the basis of <u>lowest effective rate</u> rather than lowest nominal interest rate.

CALCULATING EFFECTIVE INTEREST RATE OF A SHORT-TERM NOTE

Assumptions:

1) $500,000 RAN issued for 3 months by a town, and is the only note issued in the fiscal year.

2) $50,000 in idle demand deposits kept in investor banks for entire year to ensure goodwill.

3) Proceeds kept at investor banks in demand accounts, worked down over 3 months at an even rate.

4) Nominal rate of note is 4%. Interest cost of a 3 month 500,000 note at an annual interest rate of 4% is $5,000.

5) Rate at which municipality can invest idle cash is 5%.

Calculations:

1) Interest cost of note	$ 5,000
2) Lost investment income on $50,000 (annual)	2,500
3) Lost investment income on proceeds (average of $250,000 kept idle for 3 months)	3,125
Effective Cost:	$10,625
Effective Interest Rate:	8.50%
Nominal Interest Rate:	4.00%

Methodology:

10,625 divided by 500,000 equals 2.125%. Since the note is issued for 3 months, the effective interest rate on an annual basis is 2.125% times 4 or 8.5%.

Municipalities often maintain deposits in banks in order to ensure the willingness of those banks to bid for short-term notes. Whether such deposits are truly necessary or superfluous is a question which can be answered only on a case by case basis. Investment income foregone by making these deposits should be considered a factor when determining whether or not these deposits are worthwhile.

CHAPTER V
THE MASSACHUSETTS MUNICIPAL BOND MARKET: AN INTRODUCTION TO ISSUERS, INVESTORS, AND OTHER PARTICIPANTS

In this chapter, we step back from our detailed review of individual municipal debt issuers and issues to gain a broader perspective over the municipal bond market as a whole. General market characteristics and trends are the result of literally millions of actions by issuers, investors and other participants. Perhaps it is unrealistic to refer to a single general market, since there are many types of short and long term debt and this creates a strong incentive for participants to specialize in certain types. The term "municipal bond" is conventionally used to refer to all types regardless of length of maturity, purpose, security, or issuer.

A. WHAT MASSACHUSETTS MUNICIPALITIES ISSUE

Figures are available to show the extent of outstanding debt and borrowing by Massachusetts cities and towns in calendar year 1975. 289 of 351 cities and towns had at least $50,000 in bonds outstanding as of June 30 of that year; 26 small towns had no bonds outstanding at all. Municipalities issued in that year over 70 general obligation bond issues for about $220 million. Half of the issues on which data is available were for under $2 million; one-fifth were for a half million dollars or less.

A breakdown of the total non-general obligation debt issued by type reveals the following estimates:

Type	Amount	Purpose
*Revenue bonds	$75 million	Utility projects
*Industrial development revenue bonds	38 million	Industrial expansion
*Housing authority construction notes	63 million	Low income or elderly housing

* Source: Securities Industry Association, Massachusetts Department of Commerce and Development, Massachusetts Department of Community Affairs.

1. Purpose of General Obligation Bond Issues

Reliable information regarding the purposes of all bond issues is not readily available. However, where data is available estimates can be made of which purposes were the most popular. Utility projects were first on the list. Over half of 1975's general obligation bond issues were exclusively or partly in behalf of water, sewer and electric power projects.

As may be expected, education projects were high on the list of bonded projects. About one quarter of bond issues raised money for school and library related projects.

Utility and education projects are, on a nationwide basis, the leading purposes for municipal bond issues. Bond sales were less frequently undertaken in behalf of other purposes such as urban renewal, parks, recreation centers, open space, general purpose municipal buildings, police and fire stations and equipment, and numerous other purposes.

B. THE PURCHASERS OF GENERAL OBLIGATION ISSUES

A general idea of who typically owns Massachusetts municipal general obligation bonds can be gathered from the survey of national statistics of tax exempt debt investors. As of 1975, holders of outstanding state and local debt were estimated as follows:

Commercial banks	45%
Householders	34%
Fire and Casualty insurance companies	15%
Corporations, life insurance companies others	6%
	100%

(Source: A.C.I.R., Understanding the Market for State and Local Debt. See further reading)

These investors hold over $200 billion in outstanding municipal bonds.

As expected all major investors in tax exempt debt are taxable individuals and organizations and therefore can benefit from the tax exempt status of the investment

Recently, federal law was amended to permit the creation of mutual funds to buy and sell municipal bonds with pooled investor money. It is at this time too early to predict what impact new municipal bond funds will exert on the municipal bond market.

C. CREDIT RATINGS

No element in the municipal bond market is referred to so often, with both respect and animosity, as the credit rating system. The two leading firms which issue them are Moody's Investment Services, Inc., and Standard and Poor's Corporation. These firms assign a credit rating to individual issues for a fee paid by the issuer. They also collect, analyze and report on municipal financial trends to major investors for substantial annual fees. Due to their unexcelled concentration of data and analytical resources, these firms have exerted, particularly through their credit ratings, an extraordinary influence over the municipal bond market.

This influence is felt in a number of ways. Investors are generally willing to accept a relatively lower return on higher rated bonds. Bids submitted by underwriters to municipal issuers reflect this preference. While other factors influence interest rates, such as prevailing interest rate trends and the length of the bond's maturity, credit ratings appear to exert the greatest single influence. Nationwide, between 1970 and 1975, bonds with Moody's highest ratings ("Aaa") were sold at interest rates of 0.47% or "47 basis points" lower than bonds of comparable maturity with Moody's "A" rating. (100 basis points is one percentage point.)

FACTORS USED BY MOODY'S TO RATE GENERAL OBLIGATION BONDS

Debt Analysis

1. Debt policy: the uses, purposes, and planning of debt issuance, as well as the type of security used.

2. Debt structure: adequacy of plans for debt retirement - the relation between rate of retirement and purpose of debt, resources of the community, and existing and future debt needs.

3. Debt burden: gross and net debt related to resources and a comparison with other communities - overlapping debt.

4. Debt history and trend: the record as to defaults, refunding of bonds at maturity and funding of operating deficits - rapidity of debt growth relative to purposes for which it has been incurred.

5. Prospective borrowing: authorized and unissued bonds - adequacy of capital programming - obsolescence or inadequacy of capital plant - existing debt structure.

Financial Analysis

6. The current account: the year-end relation of current liabilities to available cash - promptness in disposing of occasional deficits - devices to keep deficits from accumulating - if accounting is revenue accrual, the adequacy of reserves for uncollectible accounts - the liquidity of current account cash and uncollected taxes should equal demand liabilities outstanding.

7. Revenue system: adequacy of property tax base - trend of assessed value, equalization ratio, levy, and collections - other components of revenue system - source, base, rates, yields - diversity, cyclical stability and adequacy of aid from other governments.

8. Expenditure analysis: vulnerability to mandated expenditures - relation of debt service to total expenditures.

9. Budget analysis: adequacy of planning - appraisal of past performance on revenue and expenditure estimates - current trend of financial operations.

10. Financial administration: assessment practices - tax collection procedures - enforcement procedures - financial planning as evidenced by budgeting, reporting, services.

11. History of financial operations: long term trend of revenues and expenditures - secular and cyclical patterns.

Government

12. Organization: diffusion of responsibility - degree of professionalism - sufficiency of powers to discharge functions.

13. Services: provision for essential services to perpetuate economic base.

14. Intergovernmental factors: the pyramid of governmental units, conflicts and duplications - complementarity - other units which drain off resources or impede planning.

15. Administrative performance: conscientious administrators who promote confidence through standing and experience - availability of audits, budgets, annual reports, capital planning documents, land use plans.

Economic

16. Identity and nature of resources: geographic and locational advantages - natural catastrophe - natural resources - size and land use characteristics.

17. Population, wealth and labor factor: population characteristics - wealth level (family income and per capita full value) - housing characteristics - new construction values.

18. Economic structure and capital: types of employment, industry and occupation - major employers - relation to SMSA - evidences of industrial decline or population shifts - transporation and its relation to the economic structure.

19. Economic performance and prospects: the secular trend of the economy - the cyclical trend - seasonal and random variations.

Source: Moody's Investors Service, Inc.,
"Analytical Factors in Municipal Bond Ratings"

MOODY'S RATINGS

KEY TO MOODY'S BOND RATINGS

Aaa

Bonds which are rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as "gilt edge." Interest payments are protected by a large or by an exceptionally stable margin and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.

Aa

Bonds which are rated Aa are judged to be of high quality by all standards. Together with the Aaa group they comprise what are generally known as high grade bonds. They are rated lower than the best bonds because margins of protection may not be as large as in Aaa securities or fluctuation of protective elements may be of greater amplitude or there may be other elements present which make the long term risks appear somewhat larger than in Aaa securities.

A

Bonds which are rated A possess many favorable investment attributes and are to be considered as upper medium grade obligations. Factors giving security to principal and interest are considered adequate but elements may be present which suggest a susceptibility to impairment sometime in the future.

Baa

Bonds which are rated Baa are considered as medium grade obligations, i.e., they are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and in fact have speculative characteristics as well.

Ba

Bonds which are rated Ba are judged to have speculative elements; their future cannot be considered as well assured. Often the protection of interest and principal payments may be very moderate and thereby not well safeguarded during both good and bad times over the future. Uncertainty of position characterizes bonds in this class.

B

Bonds which are rated B generally lack characteristics of the desirable investment. Assurance of interest and principal payments or of maintenance of other terms of the contract over any long period of time may be small.

Caa

Bonds which are rated Caa are of poor standing. Such issues may be in default or there may be present elements of danger with respect to principal or interest.

Ca

Bonds which are rated Ca represent obligations which are speculative in a high degree. Such issues are often in default or have other marked shortcomings.

C

Bonds which are rated C are the lowest rated class of bonds and issues so rated can be regarded as having extremely poor prospects of ever attaining any real investment standing.

Massachusetts municipal issuers in 1975 felt the impact of the credit ratings in the net interest costs incurred in selling bond issues. The median net interest costs of "Aa" Massachusetts municipal issues in 1975 was about 5.5%, whereas the median for "A" issues was close to 6.75%. This difference may be abnormally large due to unusual market conditions of 1975.

Massachusetts Municipal Credit Ratings
Moody's Ratings as of Early 1975:

	Aaa	Aa	A-1	A	Baa-1	Baa	Total Reported with Ratings
Cities	2	17	2	14	4		39
Towns over 10,000	4	29	23	48			104
Towns under 10,000	2	1	6	67	1	11	88

Note: 231 out of 351 cities and towns were reported to have issued rated bonds. Source: First National Bank of Boston.

While credit ratings are assigned to individual issues, a series of general obligation issues often receive the identical rating and the municipality is described by that rating. Since 1970, only about 30 Massachusetts municipalities have received rating changes by Moody's and they were equally divided between upgradings and downgradings.

1. Massachusetts vs. National Rating Trends

The "average" municipal bond issued in Massachusetts bears a somewhat lower rating than the "average" municipal bond issued throughout the country by all issuers. As the accompanying table shows, the 1975 dollar volume of "Aaa" Massachusetts municipal issues was far less than that of the nation as a whole. This table suggests that the average municipal issuer in Massachusetts probably has higher debt service costs than the average tax exempt issuer for an identical bond issued throughout the country.

Municipal Bond Issues Distributed By
Moody's Ratings, 1975. Weighted by Dollar Volume

	Aaa	Aa	A-1 A	Baa-1 Baa	
Massachusetts	2%	26	67	5	= 100%
National	16%	24	54	6	= 100%

2. How can Ratings be Improved?

Critics of the municipal credit rating system allege that ratings are set in an irrational fashion and often cannot be cogently justified by the rating agencies. As one might expect, Moody's and Standard and Poor's assert that their rating policies and procedures are conceptually sound and consistently applied.

The factors which Moody's uses to rate general obligation bonds are listed on pages 62-66. A cursory review of this list would suggest that while some factors cannot be readily influenced by municipal officials, others can. The next section of this manual includes such recommendations for improved debt management by municipalities all of which could result in a strengthening of the municipality's credit rating posture.

One method of improving credit ratings which is being used elsewhere in the nation is bond insurance purchased by the municipality. Two organizations currently offer insurance for both the interest and principal of bond issues in exchange for a premium payment. Standard and Poor's has agreed to rate insured bonds as either AAA or AA (equivalent to a Moody's Aaa and Aa). The credit rating is in effect made on the insurer rather than the issuer. The municipality benefits from insuring its issue if the estimated savings from reduced interest costs exceed the cost of insurance premiums. As of the close of 1976, no municipal issues have been insured in Massachusetts.

D. THE UNDERWRITER

The complex process by which municipal debt reaches willing investors in the municipal bond market is largely under the control of underwriters. These underwriters buy debt from the issuer and resell it, hopefully realizing a profit for assuming the associated risk and administrative burden. In contrast to the handful of law firms actively practicing bond counsel work, some fifty firms participated in the highly competitive municipal debt underwriting business in 1975 in Massachusetts. Over four bids, on average, were submitted for every competitive bond issue in that year.

Underwriters for municipal general obligation debt are either commercial banks or securities dealers, sometimes loosely referred to as brokerage houses by the public. The firms engaged in underwriting of Massachusetts municipal debt vary enormously in geographical location (many are out of state), size of operations and preferences regarding particular issues.

Prior to 1975, municipal bond underwriting activity was virtually unregulated. Problems of New York City, coupled with revelations of unethical municipal bond selling practices, inspired Congress to create a new regulatory board the powers of which have not yet been defined as of Spring, 1977. Underwriters will be subject to the regulations of the Municipal Securities Rule Making Board and the enforcement powers of its administrative parent, the Securities and Exchange Commission. The Board is empowered to develop regulations affecting underwriters and traders of municipal debt, but is prohibited from imposing regulations on the issuers directly.

1. Steps in Underwriting Municipal Bonds

In order to respond successfully to the decision by a municipality to sell bonds competitively, the underwriting community has developed methods of quickly preparing a bid and, when a bond sale is won, quickly reselling the bonds, hopefully, at a profit. The steps which are usually taken in handling Massachusetts municipal general obligation competition bid offerings are outlined in this section.

Underwriters of general obligation bonds (commercial banks and security dealers firms) monitor the municipalities over the years and develop a preference for bidding on bonds issued by certain municipalities before a particular issue in question is ever scheduled. The degree of preference on the part of underwriters may be determined by previous success in bidding for and reselling issues. It may also result from the expressed interest in the municipality by one of the investor clients or the underwriter's feeling for the credit worthiness of the issuer.

These background factors come to play when the underwriters learn of a bond sale, either by means of an advertisement or earlier through informal sources. Underwriters first determine whether they are interested in bidding. If so, then they decide whether to bid independently of other underwriters or to join other underwriters in submitting a joint bid under the management of a lead underwriter.

Records of competitive bids and awards in 1975 suggest that sales can be won by single underwriter bids as well as by joint bids, but that as the size of the issue increases, joint bid awards become more frequent.

The joint bidders form a syndicate. The syndicate manager runs the books of the syndicate, organizes the prospective allotment of bonds to co-members of the syndicate as well as of non-members, and establishes the scope of liability of individual syndicate members were bonds to remain unsold.

All the syndicate members devise the bidding price for the issue, taking into account several factors. The anticipated yields on similar bonds at the time of the syndicate's bond resale are estimated. Secondly, the preferences of interested investors, who may seek to purchase major blocks of the issue, are considered.

The syndicate members agree to a set of reoffering yields or "scale of prices" at which they believe the bonds of each maturity will be most attractive to investors, and still yield to the underwriters an adequate profit in comparison to the price the syndicate will submit to the issuer. Consistent with the general condition of the bond market, the scale is set to create larger yields for later maturity bonds than for earlier maturity bonds. The syndicate expects to resell bonds at premium or discount, compared with their purchase price, with an aggregate positive balance left over as its compensation. In recent years, the expected rate of compensation for competitively bid issues has ranged from $5 to $30 and appears to have averaged at about $15 per thousand dollars (or 1.5%) of bonds purchased and reoffered.

The syndicate submits a bid using a format described in the section on the issuance of bonds (page 35). If the syndicate wins, the manager prepares and has every member formally agree to a letter which states the price at which the syndicate purchased the bonds. The letter also includes a plan of distribution of bonds to syndicate members and nonmembers stating procedures to be followed in reoffering the bonds to the investing public.

Upon award, the syndicate offers the bonds for resale. If the market is accurately sensed, the offering may be sold within a day or a few days after the offering of bonds. After an agreed upon time the manager and other syndicate members absorb the lowered profits or loss incurred by selling any remaining bonds at discount. Underwriters are generally reluctant to hold bonds for sale for more than 30 days. The syndicate "settles with" or takes over the bonds from the issuer in exchange for cash about thirty days after award date.

Subsequent to the resale, purchasers of the bonds may sell the bonds once again in what is called the secondary market.

A chart, on page 73, tracks bond sale transactions from initial bid through resale by the initial investor in the "secondary" market. It is called a "tale of bond yields" because each exchange of bonds for cash is agreed to on the basis of different yields acceptable to the seller and buyer. The chart shows that the nominal rate is what the issuer pays in interest expense, but that underwriters and investors use yields differing from the nominal interest rate when selling and buying the bonds.

A TALE OF BOND YIELDS

The path of a $100,000 bond from initial sale, through reoffering by the underwriter and subsequent sale by the investor. See key for explanation of columns A through K.

A	B	C	D	E	F	G	H	I	J	K
1	$ 25,000	4.50%	$1,125	$ 25,224	3.20%	101.27	$ 25,317			
2	25,000	4.50%	1,125	25,224	3.70%	101.53	25,382			
3	20,000	4.50%	900	20,179	4.00%	101.40	20,280	3.50%	101.92	$20,384
4	20,000	4.50%	900	20,179	4.30%	100.73	20,146			
5	10,000	4.50%	450	10,090	4.50%	100.00	10,000			
	$100,000		$4,500	$100,896			$101,125			

Key:

Bonds to be Sold By the Municipality

A. Years to maturity. This is a five year serial maturity bond.

B. Principal Maturity each year. Note that principal amounts descend in size. Total issue is for $100,000.

Bid Submitted By The Underwriter

C. Coupon (or nominal interest rate). Must be in 1/20 or 1/8.

D. Coupon expressed in annual dollar costs.

E. Principal amount which the underwriter is willing to pay. A premium of $896 is included. Net interest cost is $41.62 per bond or 4.162%.

The dollar amounts in this column are calculated by dividing the principal maturity for each year (Col. A) by the premium expressed as 1.00896 (e.g., 25,000 X 1.00896 = 25,224).

Bonds Reoffered By The Underwriter

F. Reoffering yield (scale). Each interest rate means "yield to maturity".

G. Price adjustment factor found in bond yield tables to establish the correct principal price.

H. Principal price (e.g., $25K X 101.27 = 25,317) underwriter's "spread" (gross profits):

101,125 gross reoffering price
100,896 gross purchase price
$229 or $2.29 per bond.

Bonds Bought and Resold After A Year By the Investor

H. $20,280 is investor's purchase price for a 4.50% a year bond priced to yield 4.00% to maturity.

I. Assume that one year later, a bond due to mature in two years can be sold at a price to yield 3.50% to maturity.

J. Price adjustment factor.

K. Principal price paid by second investor.

CHAPTER VI
"WHAT CAN I DO?"

This chapter is addressed to municipal officials who want to evaluate and improve debt related practices in their communities. The steps recommended below are intended to provide municipal officials with a better understanding and control over municipal activities which affect the rate of borrowing, debt service costs, credit ratings and investment income.

As this manual has suggested, good debt management is largely a matter of seasoned judgment. There are no tests which, when applied to all municipalities, at any time, would show unequivocally that overall municipal practices are good or bad, effective or ineffective.

In recognition of the time and financial pressures imposed upon municipal government officials, the recommended steps are categorized by the estimated amount of time and financial resources required to complete the step.

A. STEPS WHICH CAN BE COMPLETED WITHIN A RELATIVELY SHORT TIME AND AT NOMINAL COST

1. The municipal treasurer can prepare a brief report of currently practiced debt sales and banking policies. This report will help municipal officials and taxpayers evaluate the quality of the municipality's debt management.

2. A historical chart of short-term borrowings and investments can be prepared to cover recent years. This chart will provide useful information regarding the municipality's debt service expense and investment income. An example is presented on page 47.

3. Underwriters of recent bond sales can be contacted by phone and asked to comment on the municipality's image in the bond market. These firms, being knowledgeable about the market place can be particularly helpful in reporting and analyzing the impact of market trends on the municipality.

4. The municipality's "vital signs" of financial stability can be recognized and monitored. These include:

   a. The rate of increase for tax levy and debt service appropriations and the causes for any significant fluctuations.
   b. The projected pace of capital spending in the foreseeable future (including projects by overlapping governmental units such as counties and special districts).
   c. "Free cash" balance and the causes for a deficit or significant fluctuations.
   d. Major changes in assessed and equalized valuation levels, both historical or predicted.
   e. Major changes in the level and nature of personnel employed by businesses in the community.
   f. Outstanding litigation affecting the financial vitality of the municipality or a major taxpayer.
   g. A recent change in credit rating.
   h. Particularly positive or adverse evaluations received in step 3 above.
   i. Existence and size of unfunded municipal pension.

B. STEPS WHICH CAN BE COMPLETED IN ONE WEEK TO A MONTH AT NOMINAL COST

The results of this examination can be reviewed with underwriters, chief bankers, and bond counsel to pinpoint key problems and remedial action.

1. If free cash is in a deficit position, property tax collection and revenue estimating procedures can be reviewed. Credit rating firms are particularly concerned about the delinquency rate of tax levies and the quality of tax administration.
2. An informational packet can be prepared and distributed with contents suggested by credit rating firms, banks, recent underwriters, and bond counsel. Underwriters, investors, and credit rating firms are more interested now than before in receiving well prepared, comprehensive information.
3. All Massachusetts municipalities are responsible for local pension plans or for a share of special district and county pension funds. Recent public discussion has focused on the extent of unfunded pension liability of these plans. The State Retirement Law Commission can be consulted about ways to deal with it.
4. A detailed capital budget for the next three to four years can be prepared based in part on an inventory of all major capital facilities and pieces of equipment, which should also be developed. Such a budget should be updated annually. This budget, even if prepared in only an outline form, will help officials set priorities for the future.
5. Cash flow forecasts can be prepared to guide borrowing and investment decisions. This step is virtually mandatory if the municipality wishes to maximize investment earnings. An example is presented on pages 49-50.

6. A formal procedure can be developed and tested to award short-term note sales on the basis of effective interest rate rather than nominal interest rate. Factors which are included in effective interest cost calculations are shown in a chart on page 57.

C. STEPS WHICH REQUIRE A LONG PERIOD OF TIME OR WHICH INCUR COSTS

1. Visit the New York City offices of the credit rating firms in order to establish better communication. The credit rating firms are pleased to arrange such meetings.
2. Prepare, review and approve a formal capital budget on an annual basis. A formal capital budget process will help to highlight capital project and debt related topics.
3. Have an audit conducted of the municipality by either the State Bureau of Accounts or an independent accounting firm. Underwriters, investors and credit rating firms have demonstrated a preference for audited financial reports.
4. Bring the management of municipal enterprises more in line with business budgeting, accounting and reporting standards. Municipal enterprises can to a large extent be operated as if they were private businesses. Sound financial management will provide better assurance that their earnings can pay debt service of debt issued in their behalf.
5. Increase the local management capacity by improving the training, supervision and compensation of employees engaged in debt management-related activities.

Maintaining high standards of debt management requires repeated evaluation and, if warranted, corrective action. Municipalities should, therefore, not treat debt management problems as those which can be solved through a single effort and then forgotten. Annual reviews, including discussions with bond market participants, provide a means for ensuring that the municipality effectively manages its debt as a community resource.

APPENDIX A

Calculation Required for Alternative II on Page 28

Original bond authorization: $1,000,000, 20 years.

Step 1. Issue $1,000,000 BAN for one year. Issuance of this BAN requires the term of the bond issue be reduced by one year. A bond issued at this point would be for 19 years.

Step 2. Renew $1,000,000 BAN for second year. This renewal requires that the term of the bond issue be reduced by another year (down to 18) and requires a payment equal to one nineteenth of $1,000,000. This is the equivalent of one principal payment if a 19 year bond had been issued when the first BAN is retired. This amount is equal to $52,631.

Step 3. Issue 18 year bond for balance or $947,369.

The legal requirements for this procedure are spelled out in Ch. 44, Section 17 and 17a.

APPENDIX B

Typical Debt Service Schedule

$1,000,000, 20 Year 6% Bond

YEAR	PRINCIPAL	INTEREST	TOTAL
1	50,000	60,000	110,000
2	50,000	57,000	107,000
3	50,000	54,000	104,000
4	50,000	51,000	101,000
5	50,000	48,000	98,000
6	50,000	45,000	95,000
7	50,000	42,000	92,000
8	50,000	39,000	89,000
9	50,000	36,000	86,000
10	50,000	33,000	83,000
11	50,000	30,000	80,000
12	50,000	27,000	77,000
13	50,000	24,000	74,000
14	50,000	21,000	71,000
15	50,000	18,000	68,000
16	50,000	15,000	65,000
17	50,000	12,000	62,000
18	50,000	9,000	59,000
19	50,000	6,000	56,000
20	50,000	3,000	53,000
	1,000,000	630,000	1,630,000

Further Reading

Various state and federal agencies publish, from time to time, descriptive material pertaining to specific capital improvement programs subject to state or federal financial assistance or oversight.

Readily available publications which address municipal debt planning and issuance in general include the following:

- Advisory Commission on Intergovernmental Relations, Understanding the Market for State & Local Debt.

  (May be acquired gratis from the Commission, Washington, D.C. 20575.)

- International City Management Association, State and Local Government Finance.

  (May be purchased from the Association, 1140 Connecticut Avenue, N.W., Washington, D.C. 20036.)

- M.G.L.A. Chapter 44. (This is the main chapter in the general laws which is devoted to municipal finance).

- Massachusetts Department of Community Affairs, Guidelines for Municipal Capital Programming. (May be acquired gratis from D.C.A., 1 Ashburton Place, Boston, 02108).

- Moak, Lennox, Administration of Local Government Debt.

  (Published by the Municipal Finance Officers Association, 1313 East 60th Street, Chicago, Illinois 60637. Available through bookstores.)

- Moody's Investors Service, Inc., Pitfalls in Issuing Municipal Bonds.

  (May be purchased from Moody's, 75 Federal Street, Boston, Massachusetts 02110.)

- Securities Industry Association, Fundamentals of Municipal Bonds.

  (May be purchased from the Association, 425 13th Street, N.W., Washington, D.C. 20004.)

GLOSSARY

Accounting System The total structure of records and procedures which identify, record, classify, and report information on the financial position and operations of a governmental unit or any of its funds, balanced account groups, and organizational components.

Accrued Interest In an original governmental bond sale, accrued interest is the amount of interest which has accumulated on the bonds from the day they are dated, up to but not including, the date of delivery (settlement date).

Amortization Gradual elimination of an obligation, such as a bond, according to a specified schedule of times and amounts. The principal amount of a home mortgage, for example, is amortized by annual payments.

Arbitrage As applied to municipal debt, the investment of tax exempt bond proceeds in taxable and higher yielding securities. This practice is restricted under Section 103 of the Internal Revenue Service Code.

Arbitrage Certificate A certified statement requested by law firms serving as bond counsel in Massachusetts that borrowing proceeds of a specified bond issue shall not be used for the purposes of arbitrage. See Arbitrage.

Audit For governmental units, an audit is usually an investigation by a qualified accountant to report on the fairness of financial statements and compliance with statutes and regulations.

Audit Report The report prepared by an auditor summarizing the results of the audit for governmental audits. The report often includes: (a) a statement of the scope of the audit; (b) explanatory comments as to application of auditing procedures; (c) opinions; (d) financial statements and schedules; and (e) statistical tables, supplementary comments, and recommendations.

Assessed Valuation A valuation set upon real estate or other property by a government as a basis for levying taxes. Equalized assessed valuation refers to a municipality's assessed valuation, as determined by local assessors, adjusted by the State Department of Corporations and Taxation on a biannual basis to reflect full market value ("equalized valuation"). 100% assessment refers to local assessments which are intended to approximate full and fair cash value of property.

Authentication See Certification.

Average Maturity The average maturity of any particular issue. Also referred to as average life.

Basis Price The price expressed in yield or net return on investment. A basis point equals 1/100th of 1%. Massachusetts municipal bonds are typically offered in 5 basis point increments of yield, i.e., 3.05, 3.10, 3.15, etc.

Bearer Bond A bond which has no ownership identification and is presumed to be the property of the holder or bearer.

Blue List A daily publication of the Blue List Publishing Co., of New York that advertises dealer offerings of municipal bonds and notes.

Bond A loan, typically over a year in maturity.

Bond Anticipation Note (BAN) Short-term note of a government sold in anticipation of bond issuance. BANs are full faith and credit obligations.

Bond Authorization See Debt Authorization

Bonds Authorized and Unissued Bonds which a government has been authorized to sell but has not yet done so. Issuance at this point is only contingent upon a majority vote of the selectmen or city council.

Bond and Interest Record The permanent and complete record maintained by a government upon each bond issue. It shows the amount of interest and principal coming due each date, the bond and coupon numbers, and all other pertinent information concerning the bond issue. The term is synonymous with Bond Register.

Bond Counsel An attorney or law firm engaged to review and submit an opinion upon legal aspects of a municipal bond or note issue.

Bond Buyer A daily trade paper containing current and historical information of interest to the municipal bond business. It also publishes The Weekly Bond Buyer.

Bond Discount The excess of the face value of a bond over the price for which it is acquired or sold. An example is a $1,000 bond which is sold for $990. The discount equals $10.

Bond Issue Generally, the sale of a certain number of bonds at one time by a governmental unit.

Bonds Payable The face value of bonds issued and unpaid.

Bond Premium The excess of the price at which a bond is acquired or sold over its face value. An example is a $1,000 bond which sells for $1,010. The premium equals $10.

Broker Acts as an intermediary between dealers in obtaining and matching bids offers. Their normal fee for consumating a transaction is 1/8 of a point (1/8 of 1%) per bond charged to the seller.

Callable Bond A bond which is subject to redemption prior to maturity at the option of the issuer.

Call Premium The percentage of par value paid to a holder of bonds called for redemption. (For example, if call price is 103 1/2, premium is 3 1/2% of par or $35 per $1,000 bond.)

Capital Budget A plan for the expenditure of public funds for capital purposes, showing as income the revenues, special assessments, free surplus, and down payment appropriations to be applied to the cost of a capital project or projects, expenses of issuance of obligation, engineering supervision, contracts, and any other related expenses.

Capital Expenditures Nonrecurring payments for capital improvements including construction, acquisition, site development and overhead costs. The fees for architects, engineers, lawyers, and other professional services plus the cost of financing, advance planning may be included.

Capital Improvements Acquisition, construction, replacement of, or major repairs to capital plant facilities, with a relatively long useful life.

Capital Improvements Program A comprehensive schedule for staging the construction or acquisition of capital improvements and the allocation of costs by sources or revenue, in accordance with a system of priorities, usually covering a period of five or six years.

Capital Project A major nonrecurring physical acquisition expenditure often including planning, acquisition, and construction phases.

Cash Currency, coin, checks, postal and express money orders, and bankers' drafts on hand or on deposit with an official or agent designated as custodian of cash and bank deposits.

Certification The action of a bank or trust company in certifying the genuineness of the municipal signatures and seal on a bond issue. The certifying agency may also supervise the printing of bonds and otherwise safeguard their preparation against fraud, counterfeiting, or over-issue. Also known as Authentication.

Chapter 74 Bond Authorization A bond authorization which relates to a public works project involving assistance by the federal government and requiring approval by the Emergency Finance Board in accordance with Chapter 74 of the Acts of 1945.

Chapter 645, Acts of 1948 See School Building Assistance Program.

Community Development Block Grant Program Created by the Federal Housing & Community Development Act of 1974, it replaced a variety of formerly "categorical" grant programs. Thirty-nine Massachusetts municipalities are guaranteed funds through at least FY 1979. All Massachusetts municipalities may apply for and receive "discretionary grants" under the Act, provided that the planning and other requirements of the Act are met. Funds may be used for acquisition of real property, clearance, construction, rehabilitation and other capital improvement activities of a community improvement nature.

Contingent Debt Debt which is not in the first instance payable as a direct obligation of the governmental unit, but has been guaranteed as an eventual charge against its faith and credit. An industrial revenue bond guaranteed by a municipality would constitute contingent debt.

Contingent Liabilities Items which may become liabilities as a result of conditions undetermined at a given date, such as guarantees, pending law suits, judgments under appeal, unsettled disputed claims, unfiled purchase orders, and uncompleted contracts.

Coupon That part of a bond which represents interest payable. Printed on each coupon is the total amount of dollars and specific date payable. They are detached from bonds by the holders semi-annually and presented for payment to a fiscal agent.

Coupon Rate See Nominal Interest Rate

Coverage A term usually connected with revenue bonds. It indicates the margin of safety for payment of debt service,

reflecting the number of times by which earnings for a period of time exceed debt service payable in such period, e.g., 1.20, 2.00, 2.50, etc.

Current Yield The coupon rate or percent of the annual interest divided by the market price of a bond.

CUSIP Stands for the Standard Securities Classification System developed by the Committee on Uniform Security Identification Procedures of the American Bankers Association. CUSIP provides a unique number for each new security issued.

Debt Authorization Formal approval to incur debt by municipal officials, in accordance with procedures stated in M.G.L.A., Ch. 44, specifically Sections 1, 2, 4, 4a, 6-15.

Debt Burden The level of debt of an issuer, usually as compared to a measure of value (debt as a percentage of assessed value, debt per capital, etc.) Sometimes debt burden is used in referring to debt service costs as a percentage of the annual budget.

Debt Limit The maximum amount of debt which a municipality may have authorized for qualified purposes under state and self-imposed ceilings.

Debt Service The cost (usually stated in annual terms) of the principal retirement and interest of any particular issue.

Default Failure to pay principal or interest when due.

Direct Debt Debt which a municipality has incurred in its own name, as opposed to overlapping debt.

Direct Placement The sale of a bond directly to the investor.

Discount See Bond Discount

Effective Interest Rate For a municipal borrower, the net cost of borrowing (expressed as an interest rate) after costs associated with a loan are accumulated and added to the nominal interest rate.

Effective Interest Yield See Yield.

Emergency Board A board authorized by M.G.L.A., Ch. 44, S. 8, 6.9 to review and approve emergency loan requests of municipalities.

Emergency Finance Board A board created by Chapter 49 of the Acts of 1933 to review and approve applications by municipalities to exceed the statutory debt limit, among other responsibilities.

FAAN See Federal Aid Anticipation Note

Federal Aid Anticipation Note (FAAN) A short-term loan issued to be paid off by a federal grant receipt. FAANs are full faith and credit obligations.

Free Cash Generally, free cash represents the portion of surplus revenue which the municipality is able to appropriate.

Full Faith and Credit A pledge of the general taxing powers for the payment of governmental obligations. Bonds carrying such pledges are usually referred to as general obligation or full faith and credit bonds.

General Obligation Debt Debt which is secured by a pledge of the general taxing powers of the governmental issuer.

General Revenue Sharing A federal program which disburses funds to municipalities on the basis of a formula fixed by law. The General Revenue Sharing Act of 1976 provides wide discretion on the part of municipalities in using these revenues.

Industrial Revenue Bond A bond used by a municipality or development corporation to acquire an industrial capacity to be leased to a private corporation.

Interest Compensation paid or to be paid for the use of money, including interest payable at periodic intervals or as discount at the time a loan is made.

Interest Rate The interest payable, expressed as a percentage of the principal available for use during a specified period of time. Always expressed in annual terms.

Investments Securities and real estate held for the production of income in the form of interest, dividends, rentals, or lease payments. The term does not include fixed assets used in governmental operations.

Judgment An amount to be paid or collected by a governmental unit as a result of a court decision, including a condemnation award in payment for private property taken for public use.

Judgment Bonds Bonds issued to fund judgments.

Legal Opinion An opinion, by an attorney or law firm, that bonds have been legally issued by a public body, and that the bonds are exempt from federal income taxes and some Massachusetts taxes under existing laws, regulations and rulings.

Maturity The date upon which the principal of the bond becomes due and payable.

Massachusetts Municipal Depository Trust Founded in 1977, it is an investment program in which municipalities may pool excess cash. It is under the supervision of the State Treasurer.

Moody's Investor Services, Inc. One of the leading municipal bond rating agencies.

Municipal(s) (As used in the bond trade) "Municipal" refers to any governmental unit below or subordinate to the state. "Municipals" (i.e., municipal bonds) include not only the bonds of all local subdivisions such as cities, towns, school districts, special districts, but also bonds of states and agencies of the state.

Municipal Bond Mutual Fund Investor funds pooled to invest in municipal bonds and notes.

Municipal Bulletin #26 A collection of extracts from the General Laws of the Commonwealth relating to municipal government and published and distributed by the State Bureau of Accounts.

Municipal Finance Officers Association (MFOA) A leading professional association which has been primarily concerned with financial accounting, management and reporting problems of local governments.

Municipal Securities Rule Making Board A board established by the Securities Act of 1975 to promulgate rules regulating transactions in municipal securities by brokers, dealers, and municipal securities dealers.

M.G.L.A. Massachusetts General Laws, Annotated.

Negotiated Sale The sale of notes or bonds by a means other than formal competitive bidding.

Net Interest Cost The computed cost of a bond issue, used to compare competitive bids. The bidder with the lowest net interest cost is awarded the bond issue.

New Issue Market Market for new issues of municipal bonds.

NIC See Net Interest Cost.

Nominal Interest Rate The contractual interest rate shown on the face and in the body of the bond or on coupons attached to the bond.

No Arbitrage Certificate See Arbritrage Certificate.

Note A short-term loan, typically of a year or less in maturity.

Notice of Sale A brief statement which is published to advertise the competitive bid sale of municipal bonds.

Official Statement A document containing information about a prospective bond issue or a note issue which contains information about the issue and the issuer, and is intended for the potential investor. The Official Statement is

sometimes published with the Notice of Sale. It is sometimes called an Offering Circular or Prospectus.

Overlapping Debt The share of community, regional school district, M.D.C. or other regional agency debt which is allocable to and payable by a municipality.

Par Value The face amount of a bond, e.g., $1,000 or $5,000.

Paying Agent A bank or other institution, located usually in a financial center, which acts as the agent for a municipality in making bond interest and principal payments.

Premium The amount by which the price exceeds the principal amount of a bond or par value.

Premium Call Price See Call Premium.

Principal The face amount of a bond, exclusive of accrued interest.

Private Sale See Negotiated Sale.

RAN See Revenue Anticipation Note.

Ratings Designations used by credit rating services to give relative indications of quality. Moody's ratings range from the highest Aaa down through Aa, A-1, A, Baa-1, Baa, Ba, B, Caa, Ca, C. Standard & Poor's ratings include: AAA, AA, A, BBB, BB, B, CCC, CC, C, DDD, DD, and D.

Redeemable Bond See Callable Bond.

Refunding System by which a bad issue is redeemed by a new bond issue under conditions generally more favorable to the issuer.

Registered Bond A bond whose owner is registered with the issuer or its agents, either as to both principal and interest or principal only.

Repurchase Agreement An agreement to purchase a security and to sell it back to the original owner in one or a few days.

Revenue Anticipation Note (RAN) A short-term loan issued to be paid off by revenues, such as tax collections. RANs are full faith and credit obligations.

Revenue Bond A bond payable from and secured solely by specific revenues and thereby not full faith and credit obligations.

Scale The underwriter's re-offering price of yields for each maturity of a serial issue.

School Building Assistance Program Established in 1948 and frequently revised by statutory amendments, this program of the Commonwealth provides financial assistance to local and regional school construction. It is administered by the School Building Assistance Bureau in the Department of Education.

Security For Massachusetts municipalities, bonds or notes evidencing a legal debt on the part of the issuer.

Serial Bond A bond of an issue which has maturities scheduled annually or semi-annually over a period of years.

Signature and No Litigation Certificate A form requested by law firms serving as bond counsel in Massachusetts.

which contains numerous certifications by municipal officials regarding the legality of a specified bond issue and the absence of adverse pending or threatened litigation.

Sinking Fund Amounts required to be set aside to either purchase bonds in the open market or call bonds so that term bonds will be retired at maturity. Currently illegal in Massachusetts municipalities.

Special Assessment Bonds Bonds payable from the proceeds of special assessments. If the bonds are payable only from the collections of special assessments, they are known as "special assessment bonds". If, in addition to the assessments, the full faith and credit of the governmental unit are pledged, they are known as "general obligation special assessment bonds".

Spread The difference between the average re-offering price and the bid price on a bond issue. The amount of spread is determined by a combination of market risk, expenses and estimated selling compensation required. It is the gross profit to the underwriters.

Standard & Poor's Corporation One of the leading municipal bond rating agencies.

State Aid Anticipation Note A short-term loan issued in anticipation of a state grant. The notes are full faith and credit obligations.

State House Note A security form issued by the State Bureau of Accounts to towns and districts and, when filled out, certified by the Bureau director.

Syndicate A group formed by one or more firms for the purpose of purchasing all or part of a new issue of municipal securities from an issue, and making a sale thereof. Sometimes referred to as an account. See Underwriter.

Tax Anticipation Note (TAN) See Revenue Anticipation Note.

Term Bond Bonds the entire principal of which matures on one date. Massachusetts municipal general obligation bonds are required by law to be retired on a serial basis.

Underwriter For municipal debt issues, a commercial bank or securities dealer which purchases all or part of a new issue in order to sell the securities to investors. A group of underwriters is called a syndicate.

Underwriter's Discount In negotiated bond issues, the agreed upon discount which the underwriter purchases the issue from the issuer. This discount is the gross profit to the underwriter.

Yield The net annual percentage of income derived from an investment. The yield of a bond reflects interest rate, length of time to maturity and write-off of premium or accrual of discount. Also referred to as "yield to maturity".

EVALUATION SURVEY
DCA IN-DEPTH STUDY PROGRAM

The Department is conducting an evaluation survey of its in-depth study program and requests recipients of this report to evaluate its effectiveness. It would be greatly appreciated if you would take a few minutes of your time to complete the following survey form, and return it to:

Massachusetts Department of Community Affairs
Office of Local Assistance
1 Ashburton Place - Room 1619
Boston, Massachusetts 02108

For all the following questions, please place appropriate letter rating in the column indicated. The letter ratings are:

A - High or Excellent
B - Above Average or Good
C - Fair or Average
D - Poor or Below Average
N/A - Not Applicable

Title of Report: MANAGING DEBT AS A COMMUNITY RESOURCE - HAVERHILL	
	Letter Rating
1. Applicability to your constituents' or community's problems/issues/concerns.	
2. Usefulness to your constituents or community in:	
a. Solving problems/issues;	
b. Providing insights to problem solving;	
c. Catalyzing local officials' action;	
d. Stimulating local discussion and providing focus.	
3. Adequacy of subject matter treatment	
4. Quality of writing and readability	
5. Quality of graphic material	
6. Adequacy as a self-teaching or "how to" manual	
7. Timeliness of subject matter to current local issues	

OVER

8. Is follow-up by DCA staff to discuss the content of this report necessary? _____ not necessary? _____. If necessary, would group training seminars be acceptable? Yes _____ No _____
Prefer individual meetings and discussions Yes _____ No _____
Other _____

_____

_____

9. Should the in-depth study program continue? Yes _____ No _____
If no, please indicate reason.

_____

_____

10. Should the in-depth study program continue? Yes _____ No _____
If yes, what would you suggest?

_____

_____

_____

11. What was your reason for requesting the report?

_____

_____

12. Other comments/ remarks:

_____

_____

_____

_____

13. Optional:

Name: _____

Address: _____

_____

_____

Telephone: _____